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REPORT NUMBER: 208-MGA-2003-008

VEHICLE SAFETY COMPLIANCE TESTING
FOR
FMVSS 208, OCCUPANT CRASH PROTECTION
FMVSS 212, WINDSHIELD MOUNTING
FMVSS 219, WINDSHIELD INTRUSION (PARTIAL)
FMVSS 301, FUEL SYSTEM INTEGRITY

New United Motor Manufacturing
2003 Toyota Corolla 4 Door Sedan
NHTSA No.: C35107

PREPARED BY:
MGA RESEARCH CORPORATION
5000 WARREN ROAD
BURLINGTON, WI 53105



Test Date: June 5, 2003

Report Date: June 16, 2003

FINAL REPORT

PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
OFFICE OF ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
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Date: June 16, 2003

FINAL REPORT ACCEPTED BY OVSC:

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16. <i>Abstract</i> Compliance tests were conducted on the subject 2003 Toyota Corolla in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP208-12 for the determination of FMVSS 208 compliance. Test failures identified were as follows: TEST FAILURES: None					
17. <i>Key Words</i> Frontal Impact 40 kmph Vehicle Safety Compliance Testing FMVSS 208, "Occupant Crash Protection" FMVSS 212, "Windshield Mounting" FMVSS 219, (partial), "Windshield Zone Intrusion" FMVSS 301, "Fuel System Integrity"		18. <i>Distribution Statement</i> Copies of this report are available from the following: NHTSA Technical Information Services (TIS), Mail Code: NPO-230 400 Seventh Street, S.W., Room 5108 Washington, D.C. 20590 Tel. No.: (202) 366-4946			
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SECTION 1
PURPOSE OF COMPLIANCE TEST

This unbelted 40 kmph flat frontal barrier impact test is part of the Federal Motor Vehicle Safety Standard (FMVSS) 208, 212, 219 (partial), and 301 compliance test program conducted for the National Highway Traffic Safety Administration (NHTSA) by MGA Research Corporation (MGA) under Contract No. DTNH22-98-D-11055. The purpose of this test was to determine whether the subject vehicle, a 2003 Toyota Corolla 4 Door, NHTSA No. C35107, meets certain performance requirements of FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Mounting"; FMVSS 219, "Windshield Zone Intrusion"; and FMVSS 301, "Fuel System Integrity". The compliance test was conducted in accordance with OVSC Laboratory Test Procedure No. TP208-12 dated January 14, 2003.

SECTION 2 TESTS PERFORMED

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance

NHTSA No.: C35107
Test Date: 6/5/03

The following checked items indicate the tests that were performed:

- | | | |
|-------------------------------------|-----|---|
| <input checked="" type="checkbox"/> | 1. | Rear outboard seating position seat belts (S4.1.1.2(b) & (S4.2.4) |
| <input checked="" type="checkbox"/> | 2. | Air bag labels (S4.5.1) |
| <input checked="" type="checkbox"/> | 3. | Readiness indicator (S4.5.2) |
| <input checked="" type="checkbox"/> | 4. | Passenger air bag manual cut-off device (S4.5.4) |
| <input checked="" type="checkbox"/> | 5. | Lap belt lockability (S7.1.1.5) |
| <input checked="" type="checkbox"/> | 6. | Seat belt warning system (S7.3) |
| <input checked="" type="checkbox"/> | 7. | Seat belt contact force (S7.4.4) |
| <input type="checkbox"/> | 8. | Seat belt latch plate access (S7.4.4) |
| <input checked="" type="checkbox"/> | 9. | Seat belt retraction (S7.4.5) |
| <input checked="" type="checkbox"/> | 10. | Seat belt guides and hardware (S7.4.6) |
| <input type="checkbox"/> | 11. | Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart N) |
| <input type="checkbox"/> | 12. | Suppression tests with newborn infant (Part 572, Subpart K) |
| <input type="checkbox"/> | 13. | Suppression tests with 3-year-old dummy (Part 572, Subpart P) |
| <input type="checkbox"/> | 14. | Suppression tests with 6-year-old dummy (Part 572, Subpart O) |
| <input type="checkbox"/> | 15. | Test of reactivation of the passenger air bag system with an unbelted 5 th percentile female dummy |
| <input type="checkbox"/> | 16. | Low risk deployment test with 12-month-old dummy (Part 572, Subpart N) |
| <input type="checkbox"/> | 17. | Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) |
| <input type="checkbox"/> | 18. | Low risk deployment test with 6-year-old dummy (Part 572, Subpart R) |
| <input type="checkbox"/> | 19. | Low risk deployment test with 5 th female dummy (Part 572, Subpart O) |
| <input checked="" type="checkbox"/> | 20. | Impact Tests |
| <input type="checkbox"/> | | Frontal Oblique |
| <input type="checkbox"/> | | Belted 50 th male dummy driver and passenger (0 to 48 kmph) (S5.1.1(a)) |
| <input type="checkbox"/> | | Unbelted 50 th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1)) |
| <input type="checkbox"/> | | Unbelted 50 th male dummy driver and passenger (32 to 40 kmph) (S5.1.2(a)(1) or S5.1.2(b)) |
| <input checked="" type="checkbox"/> | | Frontal 0° |
| <input type="checkbox"/> | | Belted 50 th male dummy driver (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a)) |
| <input type="checkbox"/> | | Belted 50 th male dummy passenger (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a)) |
| <input type="checkbox"/> | | Belted 5 th female dummy driver (0 to 48 kmph) (S16.1(a)) |
| <input type="checkbox"/> | | Belted 5 th female dummy passenger (0 to 48 kmph) (S16.1(a)) |
| <input type="checkbox"/> | | Belted 50 th male dummy driver and passenger (0 to 56 kmph) (S5.1.1.(b)(2)) |
| <input type="checkbox"/> | | Unbelted 50 th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1)) |
| <input checked="" type="checkbox"/> | | Unbelted 50 th male dummy driver (32 to 40 kmph) (S5.1.2.(a)(2) or S5.1.2(b)) |
| <input checked="" type="checkbox"/> | | Unbelted 50 th male dummy passenger (32 to 40 kmph) (S5.1.2.(a)(2) or S5.1.2(b)) |

<input type="checkbox"/>	Unbelted 5 th female dummy driver (32 to 40 kmph) (S16.1(b))
<input type="checkbox"/>	Unbelted 5 th female dummy passenger (32 to 40 kmph) (S16.1(b))
<input type="checkbox"/>	40% Offset 0° Belted 5 th male dummy driver and passenger (0 to 40 kmph) (S18.1)
<input type="checkbox"/>	21. Sled Test: unbelted 50 th male dummy driver and passenger (S13)
<input type="checkbox"/>	22. FMVSS 204 Indicant Test
<input checked="" type="checkbox"/>	23. FMVSS 212 Test
<input checked="" type="checkbox"/>	24. FMVSS 219 Indicant Test
<input checked="" type="checkbox"/>	25. FMVSS 301 Frontal Test

For the crash tests, the vehicle was instrumented with 8 accelerometers. The accelerometer data from the vehicle and dummies were sampled at 10,000 samples per second and processed as specified in SAE J211/1 MAR95 and FMVSS 208, S4.13.

The dynamic tests were recording using high speed film.

The vehicle appears to meet the performance requirements to which it was tested.

SECTION 3

INJURY RESULT SUMMARY FOR CRASH TEST

Test Vehicle: 2003 Toyota Corolla NHTSA No.: C35107
 Test Program: FMVSS 208 Compliance Test Date: 6/5/03
☒ Frontal Crash ☐ Offset Crash ☐ Low Risk Deployment
 Impact Angle: Zero degrees
 Belted Dummies: ☐ Yes ☒ No
 Speed Range: ☐ 0 to 40 kmph ☒ 32 to 40 kmph
 ☐ 0 to 48 kmph ☐ 0 to 56 kmph
 Test Speed: 39.3 kmph
 Driver Dummy: ☐ 5th female ☒ 50th male
 Passenger Dummy: ☐ 5th female ☒ 50th male
 Test Weight: 1329.1 kg

50th Percentile Male Frontal Crash Test
Vehicles certified to S5.1.1(b)(1), S5.1.1(b)(2), S5.1.2(a)(2), or S5.1.2(b)

Injury Criteria	Max. Allowable Injury Assessment Values	Driver	Passenger
HIC15	700	93	76
N _{te}	1.0	0.07	0.17
N _{tr}	1.0	0.23	0.12
N _{ce}	1.0	0.07	0.29
N _{cf}	1.0	0.08	0.12
Neck Tension	4170 N	999	757
Neck Compression	4000 N	153	194
Chest g	60 g	39	32
Chest Displacement	63 mm	25	7
Left Femur	10,000 N	5130	3413
Right Femur	10,000 N	3822	5464

SECTION 4
DISCUSSION OF TEST

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance

NHTSA No.: C35107
Test Date: 6/5/03

The photographic target positions described in Data Sheet 32 were done to the previous procedure. There were no other unexpected events or items to discuss.

SECTION 5
TEST DATA SHEETS

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance

NHTSA No.: C35107
Test Date: 6/5/03

DATA SHEET 1
COTR VEHICLE WORK ORDER

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance

NHTSA No.: C35107
Test Date: 6/5/03

COTR Signature: _____

Test to be performed for this vehicle are checked below:

- | | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | 1. Rear Outboard Seating Position Seat Belts (S4.1.2(b)) & (S4.2.4) |
| <input checked="" type="checkbox"/> | 2. Air Bag Labels (S4.5.1) |
| <input checked="" type="checkbox"/> | 3. Readiness Indicator (S4.5.2) |
| <input checked="" type="checkbox"/> | 4. Passenger Air Bag Manual Cut-off Device (S4.5.4) |
| <input checked="" type="checkbox"/> | 5. Lap Belt Lockability (S7.1.1.5) |
| <input checked="" type="checkbox"/> | 6. Seat Belt Warning System (S7.3) |
| <input checked="" type="checkbox"/> | 7. Seat Belt Contact Force (S7.4.4) |
| <input type="checkbox"/> | 8. Seat Belt Latch Plate Access (S7.4.4) |
| <input checked="" type="checkbox"/> | 9. Seat Belt Retraction (S7.4.5) |
| <input checked="" type="checkbox"/> | 10. Seat Belt Guides and Hardware (S7.4.6) |
| <input type="checkbox"/> | 11. Suppression tests with 12-month-old CRABI dummy (Part 572, Subpart N) using the following indicated child restraints. |

Section B

<input type="checkbox"/>	Britax Handle with Care 191	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Assura 4553	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Avanta SE 41530	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Smart Fit 4543	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Ariva 02727	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Opus 35 02603	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Discovery Adjust Right 212	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo First Choice 204	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo On My Way Position Right V 282	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Graco Infant 8457	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

Section C

<input type="checkbox"/>	Britax Roundabout 161	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Encore 4612	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century STE 1000 4416	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Olympian 02803	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Touriva 02519	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Horizon V 425	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Medallion 254	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

- ☐ 12. Suppression tests with newborn infant (Part 572, Subpart K) using the following indicated child restraints.

Section A

- | | | | | | | | |
|--------------------------|-------------------------|--------------------------|---------------|--------------------------|--------------|--------------------------|--------------|
| <input type="checkbox"/> | Cosco Dream Ride 02-719 | <input type="checkbox"/> | Full Rearward | <input type="checkbox"/> | Mid Position | <input type="checkbox"/> | Full Forward |
|--------------------------|-------------------------|--------------------------|---------------|--------------------------|--------------|--------------------------|--------------|
- ☐ 13. Suppression tests with 3-year-old dummy (Part 572, Subpart P) using the following indicated child restraints where a child restraint is required.

Section C

<input type="checkbox"/>	Britax Roundabout 161	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Encore 4612	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century STE 1000 4416	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Olympian 02803	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Touriva 02519	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Horizon V 425	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Medallion 254	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

Section D

<input type="checkbox"/>	Britax Roadster 9004	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Next Step 4920	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco High Back Booster 02-442	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Right Fit 245	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

14. Suppression tests with Representative 3-year-old child using the following indicated child restraints where a child restraint is required. (Appendix H, Data Sheet 16H and 17H)

Section C

<input type="checkbox"/>	Britax Roundabout 161	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Encore 4612	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century STE 1000 4416	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Olympian 02803	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Touriva 02519	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Horizon V 425	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Medallion 254	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

Section D

<input type="checkbox"/>	Britax Roadster 9004	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Next Step 4920	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco High Back Booster 02-442	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Right Fit 245	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

15. Suppression tests with 3-year-old dummy (Part 572, Subpart P) in the following positions

- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat with back not against seat back (S22.2.2.3)
- Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
- Standing on seat, facing forward (S22.2.2.5)
- Kneeling on seat facing forward (S22.2.2.6)
- Kneeling on seat facing rearward (S22.2.2.7)
- Lying on seat (S22.2.2.8)

16. Suppression tests with 3-year-old dummy (Part 572, Subpart P) in the following positions

- Sitting on seat with back against seat back (S22.2.2.1)
- Sitting on seat with back against reclined seat back (S22.2.2.2)
- Sitting on seat with back not against seat back (S22.2.2.3)
- Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)
- Standing on seat, facing forward (S22.2.2.5)
- Kneeling on seat facing forward (S22.2.2.6)
- Kneeling on seat facing rearward (S22.2.2.7)
- Lying on seat (S22.2.2.8)

17. Suppression tests with 6-year-old dummy (Part 572, Subpart N) using the following indicated child restraints where a child restraint is required.

Section D

<input type="checkbox"/>	Britax Roadster 9004	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Next Step 4920	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco High Back Booster 02-442	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Right Fit 245	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

- ☐ 18. Suppression tests with representative 6-year-old child using the following indicated child restraints where a child restraint is required.

Section D

<input type="checkbox"/>	Britax Roadster 9004	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Next Step 4920	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco High Back Booster 02-442	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Right Fit 245	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

- ☐ 19. Suppression tests with 6-year-old dummy (Part 572, Subpart N) in the following positions

☐ Sitting on seat with back against seat back (S22.2.2.1)

☐ Sitting on seat with back against reclined seat back (S22.2.2.2)

☐ Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)

☐ Sitting back in the seat and leaning on the right front passenger door (S24.2.3)

- ☐ 20. Suppression tests with representative 6-year-old child in the following positions

☐ Sitting on seat with back against seat back (S22.2.2.1)

☐ Sitting on seat with back against reclined seat back (S22.2.2.2)

☐ Sitting on seat edge, spine vertical, hands by the child's side (S22.2.2.4)

☐ Sitting back in the seat and leaning on the right front passenger door (S24.2.3)

- ☐ 21. Test of Reactivation of the Passenger Air Bag System with an Unbelted 5th percentile female dummy (S20.3, 22.3, S24.3). Perform this test after the following suppression tests:

- ☐ 22. Test of Reactivation of the passenger air bag system with a representative 5th percentile female (S20.3, 22.3, S24.3). Perform this test after the following suppression tests:

- ☐ 23. Low risk deployment test with 12-month-old dummy (Part 572, Subpart R) using the following indicated child restraints.

Section B

<input type="checkbox"/>	Britax Handle with Care 191	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Assura 4553	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Aventa SE 41530	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Smart Fit 4543	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Ariva 02727	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Opus 35 02603	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Discovery Adjust Right 212	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo First Choice 204	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo On My Way Position Right V 282	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Graco Infant 8457	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

Section C

<input type="checkbox"/>	Britax Roundabout 161	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century Encore 4612	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Century STE 1000 4416	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Olympian 02803	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Cosco Touriva 02519	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Horizon V 425	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward
<input type="checkbox"/>	Evenflo Modallion 254	<input type="checkbox"/>	Full Rearward	<input type="checkbox"/>	Mid Position	<input type="checkbox"/>	Full Forward

- ☐ 24. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) in the following positions
- | | |
|--------------------------|------------|
| <input type="checkbox"/> | Position 1 |
| <input type="checkbox"/> | Position 2 |
- ☐ 25. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) in the following positions
- | | |
|--------------------------|------------|
| <input type="checkbox"/> | Position 1 |
| <input type="checkbox"/> | Position 2 |
- ☐ 26. Low risk deployment test with 3-year-old dummy (Part 572, Subpart P) in the following positions
- | | |
|--------------------------|------------|
| <input type="checkbox"/> | Position 1 |
| <input type="checkbox"/> | Position 2 |
- ☒ 27. Impact Tests
- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | Frontal Oblique – Test Speed: |
| <input type="checkbox"/> | Belted 50 th male dummy driver and passenger (0 to 48 kmph) (S5.1.1(a)) |
| <input type="checkbox"/> | Unbelted 50 th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1)) |
| <input type="checkbox"/> | Unbelted 50 th male dummy driver and passenger (32 to 40 kmph) (S5.1.2(a)(1) or S5.1.2(b)) |
| <input checked="" type="checkbox"/> | Frontal 0° - Test Speed: 39.3 kmph |
| <input type="checkbox"/> | Belted 50 th male dummy driver (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a)) |
| <input type="checkbox"/> | Belted 50 th male dummy passenger (0 to 48 kmph) (S5.1.1.(b)(1) or S5.1.1(a)) |
| <input type="checkbox"/> | Belted 5 th female dummy driver (0 to 48 kmph) (S16.1(a)) |
| <input type="checkbox"/> | Belted 5 th female dummy passenger (0 to 48 kmph) (S16.1(a)) |
| <input type="checkbox"/> | Belted 50 th male dummy driver and passenger (0 to 56 kmph) (S5.1.1.(b)(2)) |
| <input type="checkbox"/> | Unbelted 50 th male dummy driver and passenger (0 to 48 kmph) (S5.1.2(a)(1)) |
| <input checked="" type="checkbox"/> | Unbelted 50 th male dummy driver (32 to 40 kmph) (S5.1.2(a)(2) or S5.1.2(b)) |
| <input checked="" type="checkbox"/> | Unbelted 50 th male dummy passenger (32 to 40 kmph) (S5.1.2(a)(2) or S5.1.2(b)) |
| <input type="checkbox"/> | Unbelted 5 th female dummy driver (32 to 40 kmph) (S16.1(b)) |
| <input type="checkbox"/> | Unbelted 5 th female dummy passenger (32 to 40 kmph) (S16.1(b)) |
| <input type="checkbox"/> | 40% Offset 0° Belted 5 th male dummy driver and passenger (0 to 40 kmph) (S18.1) – Test Speed: |
- ☐ 28. Sled Test: Unbelted 50th male dummy driver and passenger (S13)
- ☐ 29. FMVSS 204 Indican: Test
- ☒ 30. FMVSS 212 Test
- ☒ 31. FMVSS 219 Indican: Test
- ☒ 32. FMVSS 301 Frontal Test

DATA SHEET 2
REPORT OF VEHICLE CONDITION

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance

NHTSA No.: C35107
Test Date: 6/5/03

CONTRACT NO. DTNH22- 98-D-11055
FROM (Lab and rep name): MGA Research Corporation
TO: NHTSA, OVSC (NVS-220)

Date: 4/17/03

PURPOSE: () Initial Receipt () Received via Transfer (X) Present vehicle condition

MODEL YEAR/MAKE/MODEL/BODY STYLE: 2003 TOYOTA COROLLA 4 DOOR SDN
MANUFACTURE DATE: 03/03
NHTSA NO. C35107 GVWR: 1626kg (3585 lbs)
BODY COLOR: SILVER GAWR (Fr): 855kg (1885 lbs)
VIN: 1NXBR32E33Z170225 GAWR (Rr): 780kg (1720 lbs)

ODOMETER READINGS: ARRIVAL (miles): 43 DATE: 4/17/03
COMPLETION (miles): 47 DATE: 6/5/03

PURCHASE PRICE: (\$)
13,250

DEALER'S NAME: Frank Gentile Toyota, 6801 Washington Ave. Racine, WI 53406

- A. All options listed on window sticker are present on the test vehicle:
X Yes No
- B. Tires and wheel rims are new and the same as listed: X Yes No
- C. There are no dents or other interior or exterior flaws: X Yes No
- D. The vehicle has been properly prepared and is in running condition:
X Yes No
- E. Keyless remote is available and working: Yes X No
- F. The glove box contains an owner's manual, warranty document, consumer information, and extra set of keys: X Yes No
- G. Proper fuel filler cap is supplied on the test vehicle: X Yes No
- H. Using permanent marker, identify vehicle with NHTSA number and FMVSS test type(s) on roof line above driver door or for school buses, place a placard with NHTSA number inside the windshield and to the exterior front and rear side of bus:
X Yes No
- I. Place vehicle in storage area: X Yes No
- J. Inspect the vehicle's interior and exterior, including all windows, seats, doors, etc. to confirm that each system is complete and functional per the manufacturer's specifications. Any damage, misadjustment, or other unusual condition that could influence the test program or test results shall be recorded. Report any abnormal condition to the NHTSA COTR before beginning any test:
X Vehicle OK Conditions reported below

REPORT OF VEHICLE CONDITION AT THE COMPLETION OF TESTING

LIST OF FMVSS TESTS PERFORMED BY THIS LAB: FMVSS 208, 212, 219, 301

VEHICLE: 2003 Toyota Corolla 4 Door Sedan NHTSA NO. C35107

REMARKS:

Equipment that is no longer on the test vehicle as noted on previous page:

Spare tire, jack, trunk interior, RH rear tail light, hub covers, LH rear seat back, and headrests.

Explanation for equipment removal:

Components removed for instrumentation installation and to meet target weight.

Test Vehicle Condition:

Normal frontal impact damage

RECORDED BY: Jeff Lewandowski

DATE: 6/09/2003

APPROVED BY: David Winkelbauer

DATE: 6/16/2003

#####

RELEASE OF TEST VEHICLE

The vehicle described above is released from MGA to be delivered to:

Date:

Time:

Odometer:

Lab Rep's Signature:

Title:

Carrier/Customer Rep:

Date:

DATA SHEET 3

CERTIFICATION LABEL AND TIRE PLACARD INFORMATION

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Wayne Dahlke

NHTSA No.: C35107
 Test Date: 6/5/03

Certification Label	
Manufacturer:	New United Motor Manufacturing
Date of Manufacture:	03/03
VIN:	1NXBR32E33Z170225
Vehicle Certified As (Pass. Car/MPV/Truck/Bus):	Passenger Car
Front Axle GVWR:	855 kg (1885 lbs)
Rear Axle GVWR:	780 kg (1720 lbs)
Total GVWR:	1626 kg (3585 lbs)

Tire Placard	
<input type="checkbox"/> Not applicable, vehicle is not a passenger car and does not have a tire placard.	
<input type="checkbox"/> This is not a passenger car, but all or part of this information is still contained on a vehicle label and is reported here.	
Vehicle Capacity Weight:	390 kg (860 lbs)
Designated Seating Capacity Front:	2
Designated Seating Capacity Rear:	3
Total Designated Seating Capacity:	5
Recommended Cold Tire Inflation Pressure Front:	210 kpa (30 psi)
Recommended Cold Tire Inflation Pressure Rear:	210 kpa (30 psi)
Recommended Tire Size:	P185/65R15/86S

Signature: Wayne Dahlke

Date: 6/2/03

DATA SHEET 4

REAR OUTBOARD SEATING POSITION SEAT BELTS

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

	Yes	No
Do all rear outboard seating positions have Type 2 seat belts?	X	

If NO, describe the seat belt installed, the seat location, and any other information about the seat that would explain why a Type 2 seat belt was not installed.

REMARKS: NONE

Signature: Wayne Dahlke

Date: 6/2/03

DATA SHEET 5
AIR BAG LABELS (S4.5.1)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

- ☒ 1. Air bag maintenance label and owner's manual instructions: (S4.5.1(a))
- ☒ 1.1 Does the manufacturer recommend periodic maintenance or replacement of the air bag?
- ☐ Yes, go to 1.2
☒ No – go to 2
- ☐ 1.2 Does the vehicle have a label specifying air bag maintenance or replacement?
- ☐ Yes – Pass
☐ No – Fail
- ☐ 1.3 Does the label contain one of the following?
- ☐ Yes – Pass
☐ No – Fail
- Check applicable schedule:
☐ Schedule on label specifies month and year (Record date _____)
☐ Schedule on label specified vehicle mileage (Record mileage _____)
☐ Schedule on label specifies interval measured from date on certification label (Record interval _____)
- ☐ 1.4 Is the label permanently affixed within the passenger compartment such that it cannot be removed without destroying or defacing the label or the survivor?
- ☐ Yes – Pass
☐ No – Fail
- ☐ 1.5 Is the label lettered in English?
- ☐ Yes – Pass
☐ No – Fail
- ☐ 1.6 Is the label in block capitals and numerals?
- ☐ Yes – Pass
☐ No – Fail
- ☐ 1.7 Are the letters and numerals at least 3/32 inches high?
- ☐ Yes – Pass
☐ No – Fail
- ☐ 1.8 Does the owner's manual set forth the recommended schedule for maintenance or replacement?
- ☒ 2. Does the owner's manual: (S4.5.1(f))
- ☒ 2.1 Include a description of the vehicle's air bag system in an easily understandable format?
- ☒ Yes – Pass
☐ No – Fail

- ☒ 2.2 Include a statement that the vehicle is equipped with an air bag and a lap/shoulder belt at the front outboard seating position?
- ☒ Yes - Pass
☐ No - Fail
- ☒ 2.3 Include a statement that the air bag is a supplement restraint at the front outboard seating position?
- ☒ Yes - Pass
☐ No - Fail
- ☒ 2.4 Include a statement that the air bag is a supplement restraint at the front outboard seating position?
- ☒ Yes - Pass
☐ No - Fail
- ☒ 2.5 Provide any necessary precautions regarding the proper positioning of occupants, including children, at seating positions equipped with air bags to ensure maximum safety protection for those occupants?
- ☒ Yes - Pass
☐ No - Fail
- ☒ 2.6 Explain that no objects should be placed over or near the air bag on the steering wheel or on the instrument panel, because any such objects could cause harm if the vehicle is in a crash severe enough to cause the air bag to inflate?
- ☒ Yes - Pass
☐ No - Fail
- ☒ 2.7 Is the vehicle certified to meet the requirements of S14.5, S15, S17, S19, S21, S23, and S25? (Obtain answer from COTR) (S4.5.1(f)(2))
- ☐ Yes - (Go to 2.7.1)
☒ No - (Go to 3.)
- ☐ 2.7.1 Explain the proper functioning of the advanced air bag system? (S4.5.1(f)(2))
- ☐ Yes - Pass
☐ No - Fail
- ☐ 2.7.2 Provide a summary of the actions that may affect the proper functioning of the system? (S4.5.1(f)(2))
- ☐ Yes - Pass
☐ No - Fail
- ☐ 2.7.3 Present and explain the main components of the advanced passenger air bag system? (S4.5.1(f)(2)(i))
- ☐ Yes - Pass
☐ No - Fail
- ☐ 2.7.4 Explain how the components function together as part of the advanced passenger air bag system? (S4.5.1(f)(2)(ii))
- ☐ Yes - Pass
☐ No - Fail
- ☐ 2.7.5 Contain the basic requirements for proper operation, including an explanation of the actions that may affect the proper functioning of the system? (S4.5.1(f)(2)(iii))
- ☐ Yes - Pass
☐ No - Fail
- ☐ 2.7.6 Is the vehicle certified to the requirements of S19.2, S21.2, or 23.2 (automatic suppression)?
- ☐ Yes, continue with 2.7.6
☐ No, go to 2.7.7

- ☐ 2.7.6.1 Contain a complete description of the passenger air bag suppression system installed in the vehicle, including a discussion of any suppression zone? (S4.5.1(f)(2)(iv))
- ☐ Yes – Pass
☐ No – Fail
- ☐ 2.7.6.2 Discuss the telltale light, specifying its location in the vehicle and explaining when the light is illuminated?
- ☐ Yes – Pass
☐ No – Fail
- ☐ 2.7.7 Explain the interaction of the advanced passenger air bag system with other vehicle components, such as seat belts, seats or other components? (S4.5.1(f)(2)(v))
- ☐ Yes – Pass
☐ No – Fail
- ☐ 2.7.8 Summarize the expected outcomes when child restraint systems, children and small teenagers or adults are both properly and improperly positioned in the passenger seat, including cautionary advice against improper placement of child restraint systems? (S4.5.1(f)(2)(vi))
- ☐ Yes – Pass
☐ No – Fail
- ☐ 2.7.9 Provide information on how to contact the vehicle manufacturer concerning modifications for persons with disabilities that may affect the advanced air bag system? (S4.5.1(f)(2)(vii))
- ☐ Yes – Pass
☐ No – Fail
- ☒ 3. Sun Visor Air Bag Warning Label (S4.5.1(b)) Check only one of the following:
- ☒ The vehicle is not certified to meet the requirements of S19, S21, and S23 (Obtain answer from COTR) (S4.5.1(b)(1)) Go to 3.1 and skip 3.2 and 3.3
- ☐ The vehicle is certified to meet the requirements of S19, S21, and S23 before 9/1/03. (Obtain answer from COTR) (S4.5.1(b)(2)) Go to 3.2 and skip 3.1 and 3.3
- ☐ The vehicle is certified to meet the requirements of S19, S21, and S23 on 9/1/03 or later. (Obtain answer from COTR) (S4.5.1(b)(3)) Go to 3.3 and skip 3.1 and 3.2
- ☒ 3.1 Vehicles not certified to meet the requirements of S19, S21, and S23.
- ☒ 3.1.1 Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing it? (S4.5.1(b)(1))
- ☒ Driver Side, Yes – Pass
☐ Driver Side, No – Fail
☒ Passenger Side, Yes – Pass
☐ Passenger Side, No – Fail

- ☒ 3.1.2 Does the label conform in content to the label shown in either Figure 6A or 6B (Figure 6b is for vehicles with passenger air bag on-off switches), as appropriate, at each front outboard seating position? (S4.5.1(b)(1)) (Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(b)(1)(iv))



Figure 6A: Sun View Label Visible When Visor is Down Position.

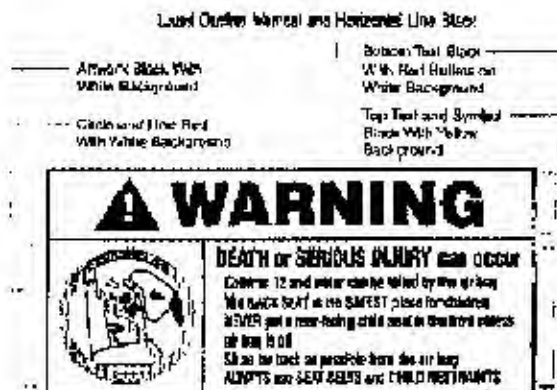


Figure 6B: Sun View Label Visible When Visor is in Down Position.

- ☒ Driver Side, Yes – Pass
- ☐ Driver Side, No – Fail
- ☒ Passenger Side, Yes – Pass
- ☐ Passenger Side, No – Fail
- ☒ 3.1.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(b)(1)(i))
- ☒ Driver Side, Yes – Pass
- ☐ Driver Side, No – Fail
- ☒ Passenger Side, Yes – Pass
- ☐ Passenger Side, No – Fail
- ☒ 3.14 Is the message area white with black text? (S4.5.1(b)(1)(ii))
- ☒ Driver Side, Yes – Pass
- ☐ Driver Side, No – Fail
- ☒ Passenger Side, Yes – Pass
- ☐ Passenger Side, No – Fail

☒

3.15

Is the message area at least 30 cm²? (S4.5.1(b)(1)(ii))Driver Side: Length 11.5, Width 5.2Passenger Side: Length 11.5, Width 5.2Actual message area 59.8 cm²☒

Driver Side, Yes – Pass

☐

Driver Side, No – Fail

☒

Passenger Side, Yes – Pass

☐

Passenger Side, No – Fail

☒

3.16

Is the pictogram black with a red circle and slash on a white background?
(S4.5.1(b)(2)(iii))☒

Driver Side, Yes – Pass

☐

Driver Side, No – Fail

☒

Passenger Side, Yes – Pass

☐

Passenger Side, No – Fail

☒

3.17

Is the pictogram at least 30 mm in diameter? (S4.5.1(b)(2)(iii))

Actual diameter 30 mm☒

Driver Side, Yes – Pass

☐

Driver Side, No – Fail

☒

Passenger Side, Yes – Pass

☐

Passenger Side, No – Fail

☐

3.2

Vehicles certified to meet the requirements of S19, S21, and S23 before 9/1/03.

☐

3.2.1

Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1(b)(2))

☐

Driver Side, Yes – Pass

☐

Driver Side, No – Fail

☐

Passenger Side, Yes – Pass

☐

Passenger Side, No – Fail

- ☐ 3.2.2 Does the label conform in content to the label shown in either Figure 8 or 11 at each front outboard seating position? (S4.5.1(b)(2)) (Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(b)(2)(iv)) Vehicles without back seats or the back seat is too small to accommodate a rear-facing child restraint may omit the statement "Never put a rear-facing child seat in the front." (S4.5.1(b)(2)(v))

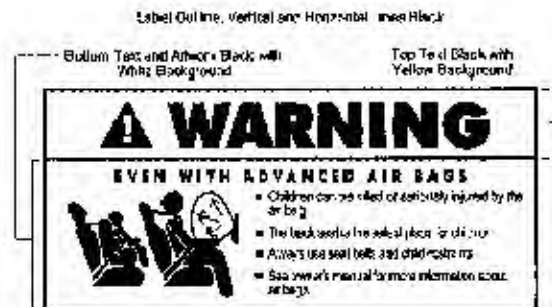


Figure 8. Air Bag Label Vehicle when Vehicle is in Down Position.



Figure 11. Air Bag Label Vehicle when Vehicle is in Down Position.

- ☐ 3.2.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(b)(2)(i))
- ☐ 3.2.4 Is the message area white with black text? (S4.5.1(b)(2)(ii))
- | | |
|--------------------------|----------------------------|
| <input type="checkbox"/> | Driver Side, Yes – Pass |
| <input type="checkbox"/> | Driver Side, No – Fail |
| <input type="checkbox"/> | Passenger Side, Yes – Pass |
| <input type="checkbox"/> | Passenger Side, No – Fail |
- | | |
|--------------------------|----------------------------|
| <input type="checkbox"/> | Driver Side, Yes – Pass |
| <input type="checkbox"/> | Driver Side, No – Fail |
| <input type="checkbox"/> | Passenger Side, Yes – Pass |
| <input type="checkbox"/> | Passenger Side, No – Fail |
- | | |
|--------------------------|----------------------------|
| <input type="checkbox"/> | Driver Side, Yes – Pass |
| <input type="checkbox"/> | Driver Side, No – Fail |
| <input type="checkbox"/> | Passenger Side, Yes – Pass |
| <input type="checkbox"/> | Passenger Side, No – Fail |

- ☐ 3.2.5 Is the message area at least 30 cm²? (S4.5.1(b)(2)(ii))
 Driver Side: Length _____, Width _____
 Passenger Side: Length _____, Width _____
 Actual message area _____ cm²
☐ Driver Side, Yes – Pass
☐ Driver Side, No – Fail
☐ Passenger Side, Yes – Pass
☐ Passenger Side, No – Fail
- ☐ 3.2.6 Is the pictogram black on a white background? (S4.5.1(b)(2)(iii))
☐ Driver Side, Yes – Pass
☐ Driver Side, No – Fail
☐ Passenger Side, Yes – Pass
☐ Passenger Side, No – Fail
- ☐ 3.2.7 Is the pictogram at least 30 mm (1.2 inches) in length? (S4.5.1(b)(2)(iii))
 Driver Side: Length _____
 Passenger Side: Length _____
☐ Driver Side, Yes – Pass
☐ Driver Side, No – Fail
☐ Passenger Side, Yes – Pass
☐ Passenger Side, No – Fail
- ☐ 3.3 Vehicles certified to meet the requirements of S19, S21, and S23 on 9/1/03 and later. (S4.5.1(b)(3))
- ☐ 3.3.1 Is the label permanently affixed (including permanent marking on the visor material or molding into the visor material) to either side of the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1(c)(3))
☐ Driver Side, Yes – Pass
☐ Driver Side, No – Fail
☐ Passenger Side, Yes – Pass
☐ Passenger Side, No – Fail
- ☐ 3.3.2 Does the label conform in content to the label shown in either Figure 11 at each front outboard seating position? (S4.5.1(b)(2)) (Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(b)(3)(iv)) Vehicles without back seats or the back seat is too small to accommodate a rear-facing child restraint may omit the statement "Never put a rear-facing child seat in the front." (S4.5.1(b)(3)(v))



Figure 11. Sun View Label Visual when Meter is in Down Position.

- ☐ 3.3.3 Is the label heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(b)(3)(i))
- ☐ 3.3.4 Is the message area white with black text? (S4.5.1(b)(3)(ii))
- ☐ 3.3.5 Is the message area at least 30 cm²? (S4.5.1(b)(3)(ii))
- Driver Side: Length _____, Width _____
 Passenger Side: Length _____, Width _____
 Driver Actual message area _____ cm²
 Passenger Actual message area _____ cm²
- ☐ 3.3.6 Is the pictogram back on a white background? (S4.5.1(b)(3)(iii))
- ☐ 3.3.7 Is the pictogram at least 30 mm (1.2 inches) in length? (S4.5.1(b)(3)(iii))
- Driver Side: Length _____
 Passenger Side: Length _____

- ☒ 3.4 Is the same side of the sun visor that contains the air bag warning label free of other information with the exception of the air bag maintenance label and/or the rollover-warning label? (S4.5.1(b)(5)(i))
- ☐ Driver Side, No – Fail
☐ Passenger Side, Yes – Pass
☐ Passenger Side, No – Fail
- ☒ 3.5 Is the sun visor free of other information about air bags or the need to wear seat belts with the exception of the air bag alert label and/or the rollover-warning label? (S4.5.1(b)(5)(ii))
- ☒ Driver Side, Yes – Pass
☐ Driver Side, No – Fail
☒ Passenger Side, Yes – Pass
☐ Passenger Side, No – Fail
- ☒ 3.6 Does the driver side visor contain a rollover-warning label on the same side of the visor as the air bag warning label?
- ___ Yes, go to 3.6.1
- ___ ☒ No, go to 4 (skipping 3.6.1 through 3.6.3)
- ☐ 3.6.1 Are both the rollover-warning label and the air bag warning label surrounded by a continuous solid-lined border?
- ___ Yes, go to 3.6.2 and skip 3.6.3
- ___ No, go to 3.6.3 and skip 3.6.2
- ☐ 3.6.2 Is the shortest distance from the border of the rollover label to the border of the air bag warning label at least 1 cm? (575.105 (d)(1)(iv)(B))
- _____ actual distance
- ☐ 3.6.3 Is the shortest distance from any of the lettering or graphics on the rollover-warning label to any of the lettering or graphics of the air bag warning label at least 3 cm? (575.105 (d)(1)(iv)(A))
- _____ actual distance
- ☒ 4. Air Bag Alert Label (S4.5.1(c) (A "Rollover Warning Label" or "Rollover Alert Label" may be on the same side of the driver's sun visor as the "Air Bag Alert Label." 575.105(c))
- ☒ 4.1 Is the sun visor warning label visible when the sun visor is in the stowed position?
- ☒ If yes for driver and passenger, go to 5.
☒ Driver Side, Yes – Pass
☐ Driver Side, No – Fail
☒ Passenger Side, Yes – Pass

- ☐ Passenger Side, No – Fail
- ☐ 4.2 Is the air bag alert label permanently affixed (including permanent marking on the visor material or molding into the visor material) to the sun visor at each front outboard seating position such that it cannot be removed without destroying or defacing the label or the sun visor? (S4.5.1(c))
- ☐ Driver Side, Yes – Pass
- ☐ Driver Side, No – Fail
- ☐ Passenger Side, Yes – Pass
- ☐ Passenger Side, No – Fail
- ☐ 4.3 Is the air bag alert label visible when the visor is in the stowed position? (S4.5.1(c))
- ☐ Driver Side, Yes – Pass
- ☐ Driver Side, No – Fail
- ☐ Passenger Side, Yes – Pass
- ☐ Passenger Side, No – Fail
- ☐ 4.4 Does the label conform in content to the label shown in Figure 6C? (S4.5.1(c))



Figure 6C. Sun Visor Label Visible When Visor Is in Up Position.

- ☐ Driver Side, Yes – Pass
- ☐ Driver Side, No – Fail
- ☐ Passenger Side, Yes – Pass
- ☐ Passenger Side, No – Fail
- ☐ 4.5 Is the message area black with yellow text? (S4.5.1(c)(1))
- ☐ Driver Side, Yes – Pass
- ☐ Driver Side, No – Fail
- ☐ Passenger Side, Yes – Pass
- ☐ Passenger Side, No – Fail
- ☐ 4.6 Is the message area at least 20 cm²? (S4.5.1(c)(1))
- Driver Side: Length _____, Width _____
- Passenger Side: Length _____, Width _____
- Actual message area _____ cm²
- ☐ Driver Side, Yes – Pass
- ☐ Driver Side, No – Fail

	<input type="checkbox"/>	Passenger Side, Yes – Pass
	<input type="checkbox"/>	Passenger Side, No – Fail
<input type="checkbox"/>	4.7	Is the pictogram black with a red circle and slash on a white background? (S4.5.1(c)(2))
	<input type="checkbox"/>	Driver Side, Yes – Pass
	<input type="checkbox"/>	Driver Side, No – Fail
	<input type="checkbox"/>	Passenger Side, Yes – Pass
	<input type="checkbox"/>	Passenger Side, No – Fail
<input type="checkbox"/>	4.8	Is the pictogram at least 20 mm in diameter? (S4.5.1(c)(2))
		Driver Side Diameter _____ mm
		Passenger Side Diameter _____ mm
	<input type="checkbox"/>	Driver Side, Yes – Pass
	<input type="checkbox"/>	Driver Side, No – Fail
	<input type="checkbox"/>	Passenger Side, Yes – Pass
	<input type="checkbox"/>	Passenger Side, No – Fail
<input checked="" type="checkbox"/>	5.	Label on the Dashboard
<input checked="" type="checkbox"/>	5.1	Is the vehicle certified to meet the requirements of S19, S21, and S23? (Obtain answer from COTR) (S4.5.1(3)(2))
	<input type="checkbox"/>	Yes, go to 5.1.1 and skip 5.2
	<input checked="" type="checkbox"/>	No, go to 5.2, skipping 5.1.1 through 5.1.6
	<input type="checkbox"/>	Driver Side, Yes – Pass
	<input type="checkbox"/>	Driver Side, No – Fail
	<input type="checkbox"/>	Passenger Side, Yes – Pass
	<input type="checkbox"/>	Passenger Side, No – Fail
<input type="checkbox"/>	5.1.1	Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e)(2))
<input type="checkbox"/>	5.1.2	Is the label clearly visible from all front seating positions? (S4.5.1(e)(2))
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	5.1.3	Does the label conform in content to the label shown in Figure 9? (S4.5.1(e)(2)) Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(e)(2)(iii))
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	5.1.4	Is the heading area yellow with black text? (S4.5.1(e)(2)(i))
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	5.1.5	Is the message white with black text? (S4.5.1(e)(2)(ii))
	<input type="checkbox"/>	Yes – Pass
	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	5.1.6	Is the message area at least 30 cm ² ? (S4.5.1(e)(2)(ii))
		Length _____, Width _____
		Actual message area _____ cm ²

	<input type="checkbox"/>	Yes - Pass
	<input type="checkbox"/>	No - Fail
<input checked="" type="checkbox"/> 5.2		Does the vehicle have a label on the dash or steering wheel hub? (S4.5.1(e)(1))
	<input checked="" type="checkbox"/>	Yes - Pass
	<input type="checkbox"/>	No - Fail
<input checked="" type="checkbox"/> 5.2.1		Is the label clearly visible from all front seating positions? (S4.5.1(e)(1))
	<input checked="" type="checkbox"/>	Yes - Pass
	<input type="checkbox"/>	No - Fail
<input checked="" type="checkbox"/> 5.2.2		Does the label conform in content to the label shown in Figure 7? (S4.5.1(e)(1)(iii)) Vehicles without back seats may omit the statement: "The back seat is the safest place for children." (S4.5.1(e)(2)(iii))
	<input checked="" type="checkbox"/>	Yes - Pass
	<input type="checkbox"/>	No - Fail
<input checked="" type="checkbox"/> 5.2.3		Is the heading area yellow with the word "WARNING" and the alert symbol in black? (S4.5.1(e)(1)(i))
	<input checked="" type="checkbox"/>	Yes - Pass
	<input type="checkbox"/>	No - Fail
<input checked="" type="checkbox"/> 5.2.4		Is the message white with black text? (S4.5.1(e)(1)(ii))
	<input checked="" type="checkbox"/>	Yes - Pass
	<input type="checkbox"/>	No - Fail
<input checked="" type="checkbox"/> 5.2.5		Is the message area at least 30 cm ² ? (S4.5.1(e)(1)(ii)) Length <u>10</u> , Width <u>3</u> Actual message area <u>30</u> cm ²
	<input checked="" type="checkbox"/>	Yes - Pass
	<input type="checkbox"/>	No - Fail

I certify that I have read and performed each instruction.

Signature: Wayne Zuhl

Date: 6/2/03

DATA SHEET 5

FMVSS 208 READINESS INDICATOR (S4.5.2)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

An occupant restraint system that deploys in the event of a crash shall have a monitoring system with a readiness indicator. A totally mechanical system is exempt from this requirement. (11/8/94 legal interpretation to Lawrence F. Hennegerger on behalf of Breed)

- ☒ 1. Is the system totally mechanical? If Yes, this data sheet is complete.
☐ Yes
☒ No
- ☒ 2. Describe the location of the readiness indicator: Left side of instrument panel
- ☒ 3. Is the readiness indicator clearly visible to the driver?
☒ Yes - Pass
☐ No - Fail
- ☒ 4. Is a list of the elements in the occupant restraint system, being monitored by the readiness indicator, provided on a label or in the owner's manual?
☒ Yes - Pass
☐ No - Fail
- ☒ 5. Does the vehicle have an on-off switch for the passenger air bag?
☐ If Yes, go to 6
☒ If No, this form is complete.
- ☐ 6. Is the air bag readiness indicator off when the passenger air bag switch is in the off position?
☐ Yes - Pass
☐ No - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Dahlke

Date: 6/2/03

DATA SHEET 7

PASSENGER AIR BAG MANUAL CUT-OFF DEVICE (S4.5.4)

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Wayne Dahlke

NHTSA No.: C35107
 Test Date: 6/5/03

- ☒ 1. Is the vehicle equipped with an on-off switch that deactivates the air bag installed at the right front outboard seating position?
- ☐ Yes, go to 2
- ☒ No, this sheet is complete
- ☐ 2. Does the vehicle have any forward-facing rear designated seating positions? (S4.5.4(a))
- ☐ Yes, go to 3
- ☐ No, go to 4
- ☐ 3. Verification of the lack of room for a child restraint in the rear seat behind the driver's seat. (S4.5.4(b))
- ☐ 3.1 Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position (S8.1.3)
- ☐ N/A, no lumbar adjustment
- ☐ 3.2 Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.02)
- ☐ N/A, no additional support adjustment
- ☐ 3.3 If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)
- ☐ N/A, no independent fore-aft seat cushion adjustment
- ☐ 3.4 If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position (S16.2.10.3.1)
- ☐ N/A, no independent seat cushion height adjustment
- ☐ 3.5 Put the seat in its full rearward position. (S16.2.10.3.1)
- ☐ N/A, the seat does not have a fore-aft adjustment
- ☐ 3.6 If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
- ☐ N/A, no seat height adjustment
- ☐ 3.7 Draw a horizontal reference line on the side of the seat cushion.
- ☐ 3.8 Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.
- ☐ N/A — the seat does not have a fore-aft adjustment.
- ☐ 3.9 Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position. (S8.1.2)
- ☐ N/A — the seat does not have fore-aft adjustment.

<input type="checkbox"/>	<input type="checkbox"/>	Mid position
<input type="checkbox"/>		If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat:
<input type="checkbox"/>	3.10	If seat adjustments, other than fore-aft, are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal.
<input type="checkbox"/>	<input type="checkbox"/>	N/A – No adjustments
<input type="checkbox"/>		Angle of reference line as tested:
<input type="checkbox"/>	3.11	The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
<input type="checkbox"/>	<input type="checkbox"/>	N/A – No seat back angle adjustment
<input type="checkbox"/>		Manufacturers design seat back angle:
<input type="checkbox"/>		Tested seat back angle:
<input type="checkbox"/>	3.12	Is the driver seat a bucket seat?
<input type="checkbox"/>	<input type="checkbox"/>	Yes, go to 3.12.1 and skip 3.12.2
<input type="checkbox"/>	<input type="checkbox"/>	No, go to 3.12.2 and skip 3.12.1
<input type="checkbox"/>	3.12.1	Bucket Seats:
<input type="checkbox"/>	3.12.1.1	Locate and mark a vertical Plane B through the longitudinal centerline of the seat driver's seat cushion. (S22.2.1.3) The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle.
<input type="checkbox"/>		Record the width of the seat:
<input type="checkbox"/>		Record the distance from the edge of the seat to Plane B:
<input type="checkbox"/>	3.12.1.2	Locate the longitudinal horizontal line in plane B that is tangent to the highest point of the rear seat cushion behind the driver's seat. Measure along this line from the front of the seat back of the rear seat to the rear of the seat back of the driver's seat.
<input type="checkbox"/>		Distance (mm):
<input type="checkbox"/>	<input type="checkbox"/>	Less than 720 mm – Pass
<input type="checkbox"/>	<input type="checkbox"/>	More than 720 mm – Fail
<input type="checkbox"/>		Go to 4
<input type="checkbox"/>	3.12.2	Bench seats (including split bench seats):
<input type="checkbox"/>	3.12.2.1	Locate and mark a vertical Plane B through the center of the steering wheel parallel to the vehicle longitudinal centerline.
<input type="checkbox"/>	3.12.2.2	Locate the longitudinal horizontal line in plane B that is tangent to the highest point of the rear seat cushion. Measure along this line from the front of the seat back of the rear seat to the rear of the seat back of the front seat.
<input type="checkbox"/>		Distance (mm):
<input type="checkbox"/>	<input type="checkbox"/>	Less than 720 mm – Pass
<input type="checkbox"/>	<input type="checkbox"/>	More than 720 mm – Fail
<input type="checkbox"/>		Go to 4
<input type="checkbox"/>	4.	Does the device turn the air bag on and off using the vehicle's ignition key? (S4.5.4.2)
<input type="checkbox"/>	<input type="checkbox"/>	Yes – Pass

<input type="checkbox"/>	<input type="checkbox"/>	No – Fail
<input type="checkbox"/>	5.	Is the on-off device separate from the ignition switch? (S4.5.4.2)
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	6.	Is there a telltale light that comes on when the passenger air bag is turned off? (S4.5.4.2)
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	7.	Telltale light (S4.5.4.3)
<input type="checkbox"/>	7.1	Is the light yellow? S4.5.4.3(a))
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	7.2	Are the words "PASSENGER AIR BAG OFF" (S4.5.4.3(b))
<input type="checkbox"/>	7.2.1	on the telltale?
		<input type="checkbox"/> Yes – Pass, go to 7.3
		<input type="checkbox"/> No – go to 7.2.2
<input type="checkbox"/>	7.2.2	within 25 mm of the telltale?
<input type="checkbox"/>		Measurement from the edge of the telltale light (mm):
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	7.3	Does the telltale remain illuminated while the air bag is turned off? (S4.5.4.3c)) (Leave the air bag off for 5 minutes.)
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	7.4	Is the telltale illuminated while the air bag is turned on? (S4.5.4.3(d))
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	7.5	Is the telltale combined with the air bag readiness indicator? (S4.5.4.3(e))
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	8.	Owner's Manual
<input type="checkbox"/>	8.1	Does the owner's manual contain complete instructions on the operation of the on-off switch? (S4.5.4.4(a))
		<input type="checkbox"/> Yes – Pass
		<input type="checkbox"/> No – Fail
<input type="checkbox"/>	8.2	Does the owner's manual contain a statement that the on-off switch should only be used when a member of one of the following risk groups is occupying the right front passenger seating position? (S4.5.4.4(b))
	Infants:	there is no back seat the rear seat is too small to accommodate a child restraint there is a medical condition that must be monitored constantly
	Children aged 1 to 12:	there is no back seat space is not always available in the rear seat there is a medical condition that must be monitored constantly
	Medical condition:	medical risk causes special risk for passenger greater risk for harm than with the air bag on

☐

8.3

☐

Yes – Pass

☐

No – Fail

☐

Yes – Pass

☐

No – Fail

Does the owner's manual contain a warning about the safety consequences of using the on-off switch at other times?

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:

Wayne Gahlke

Date:

6/2/03

DATA SHEET 8

LAP BELT LOCABILITY

Passenger cars, trucks, buses, and multipurpose passenger
Vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107

Test Date: 6/5/03

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

DESIGNATED SEATING POSITION:	Front Passenger
------------------------------	-----------------

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> | N/A – no retractor is at this position |
| <input type="checkbox"/> | N/A – the retractor is an automatic locking retractor ONLY |
| <input checked="" type="checkbox"/> | 1. Record test fore-aft seat position: Aft
(S7.1.1.5(c)(1)) (Any position is acceptable) |
| <input checked="" type="checkbox"/> | 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle.
(S7.1.1.5 (a))
<input checked="" type="checkbox"/> Yes – Pass
<input type="checkbox"/> No – Fail |
| <input checked="" type="checkbox"/> | 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))
<input checked="" type="checkbox"/> Yes – Pass
<input type="checkbox"/> No – Fail |
| <input checked="" type="checkbox"/> | 4. Buckle the seat belt. (S7.1.1.5(c)(1)) |
| <input checked="" type="checkbox"/> | 5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2)) |
| <input checked="" type="checkbox"/> | 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2)) |
| <input checked="" type="checkbox"/> | 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
<input checked="" type="checkbox"/> Yes, go to 7.1
<input type="checkbox"/> No, go to 8 |
| <input checked="" type="checkbox"/> | 7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
<input checked="" type="checkbox"/> Yes – Pass
<input type="checkbox"/> No – Fail |
| <input checked="" type="checkbox"/> | 8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1)) |

- ☒ 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒ Measured distance between A and B (inches): 71 1/2
- ☒ 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
- ☒ Measured force application angle (Spec. 5-15 degrees): 10
- ☒ 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
- ☒ Measured distance between A and B (inches): 46 3/4
- ☒ 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
- ☒ Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 10
- ☒ Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 46 7/8
- ☒ 14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7))
- ☒ $13 - 12 = 1/8$
- ☒ Yes - Pass
- ☐ No - Fail
- ☒ 15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8))
- ☒ $9 - 13 = 24 5/8$
- ☒ Yes - Pass
- ☐ No - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:

Wayne Gahle

Date:

6/2/03

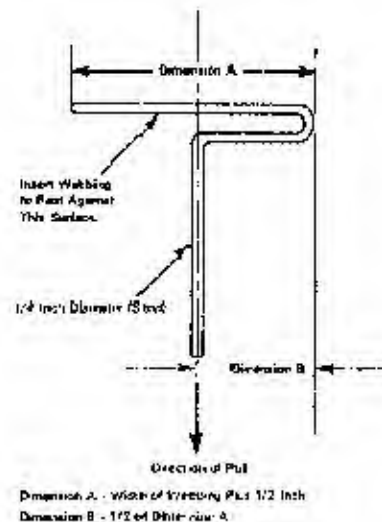


Figure 5. Webbing Tension Pull Device

DATA SHEET 8

LAP BELT LOCABILITY

Passenger cars, trucks, buses, and multipurpose passenger
Vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahike

NHTSA No.: C35107
Test Date: 6/5/03

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

DESIGNATED SEATING POSITION:

Left Rear Passenger

<input type="checkbox"/>	N/A – no retractor is at this position
<input type="checkbox"/>	N/A – the retractor is an automatic locking retractor ONLY
<input checked="" type="checkbox"/>	1. Record test fore-aft seat position: Not Adjustable (S7.1.1.5(c)(1)) (Any position is acceptable)
<input checked="" type="checkbox"/>	2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5 (a))
	<input checked="" type="checkbox"/> Yes – Pass
	<input type="checkbox"/> No – Fail
<input checked="" type="checkbox"/>	3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))
	<input checked="" type="checkbox"/> Yes – Pass
	<input type="checkbox"/> No – Fail
<input checked="" type="checkbox"/>	4. Buckle the seat belt. (S7.1.1.5(c)(1))
<input checked="" type="checkbox"/>	5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
<input checked="" type="checkbox"/>	6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
<input checked="" type="checkbox"/>	7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
	<input checked="" type="checkbox"/> Yes, go to 7.1
	<input type="checkbox"/> No, go to 8
<input checked="" type="checkbox"/>	7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
	<input checked="" type="checkbox"/> Yes – Pass
	<input type="checkbox"/> No – Fail
<input checked="" type="checkbox"/>	

- ☒ 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒ Measured distance between A and B (inches): 63 1/4
- ☒ 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
- ☒ Measured force application angle (Spec. 5-15 degrees): 10
- ☒ 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
- ☒ Measured distance between A and B (inches): 41 3/4
- ☒ 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
- ☒ Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 10
- ☒ Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 41 7/8
- ☒ 14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7))
- ☒ $13 - 12 = 1/8$
- ☒ Yes - Pass
- ☐ No - Fail
- ☒ 15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8))
- ☒ $9 - 13 = 21 3/8$
- ☒ Yes - Pass
- ☐ No - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:

Wayne G. Allen

Date:

6/2/03

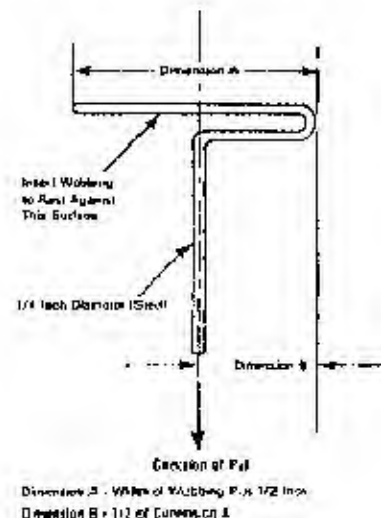


Figure 5 - Webbing Tension Pull Device

DATA SHEET 8

LAP BELT LOCABILITY

**Passenger cars, trucks, buses, and multipurpose passenger
Vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)**

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), and that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

DESIGNATED SEATING POSITION:	<u>Center Rear Passenger</u>
-------------------------------------	------------------------------

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> | N/A – no retractor is at this position |
| <input type="checkbox"/> | N/A – the retractor is an automatic locking retractor ONLY |
| <input checked="" type="checkbox"/> | 1. Record test fore-aft seat position: Not Adjustable (S7.1.1.5(c)(1)) (Any position is acceptable) |
| <input checked="" type="checkbox"/> | 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5 (a)) |
| | <input checked="" type="checkbox"/> Yes – Pass |
| | <input type="checkbox"/> No – Fail |
| <input checked="" type="checkbox"/> | 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does NOT require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a)) |
| | <input checked="" type="checkbox"/> Yes – Pass |
| | <input type="checkbox"/> No – Fail |
| <input checked="" type="checkbox"/> | 4. Buckle the seat belt. (S7.1.1.5(c)(1)) |
| <input checked="" type="checkbox"/> | 5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2)) |
| <input checked="" type="checkbox"/> | 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2)) |
| <input checked="" type="checkbox"/> | 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing? |
| | <input checked="" type="checkbox"/> Yes, go to 7.1 |
| | <input type="checkbox"/> No, go to 8 |
| <input checked="" type="checkbox"/> | 7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b)) |
| | <input checked="" type="checkbox"/> Yes – Pass |
| | <input type="checkbox"/> No – Fail |
| <input checked="" type="checkbox"/> | 8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1)) |

- ☒ 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒ Measured distance between A and B (inches): 62
- ☒ 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
- ☒ Measured force application angle (Spec. 5-15 degrees): 10
- ☒ 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
- ☒ Measured distance between A and B (inches): 41 1/4
- ☒ 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
- ☒ Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 10
- ☒ Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 42
- ☒ 14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7))
- ☒ $13 - 12 = 3/4$
- ☒ Yes - Pass
- ☐ No - Fail
- ☒ 15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8))
- ☒ $9 - 13 = 20$
- ☒ Yes - Pass
- ☐ No - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Gahl

Date: 6/2/03

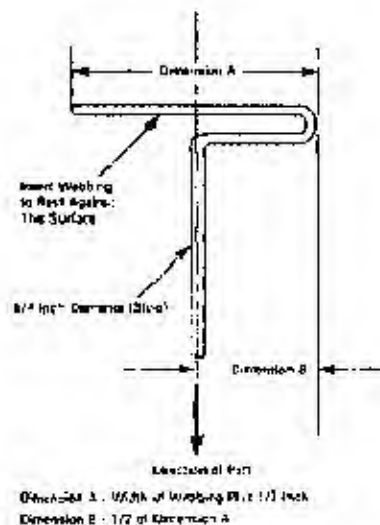


Figure 5 - Webbing Tension Pull Device

DATA SHEET 8

LAP BELT LOCABILITY

Passenger cars, trucks, buses, and multipurpose passenger
Vehicles with a GVWR of 10,000 pounds or less. (S7.1.1.5)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

Complete one of these forms for **each** designated seating position that can be adjusted to forward-facing or that is a forward-facing seat, other than the driver's seat (S7.1.1.5(a), **and** that has seat belt retractors that are not solely automatic locking retractors. (S7.1.1.5(c))

DESIGNATED SEATING POSITION:	Right Rear Passenger
------------------------------	----------------------

- ☐ N/A — no retractor is at this position
☐ N/A — the retractor is an automatic locking retractor **ONLY**
- ☒ 1. Record test fore-aft seat position: Not Adjustable (S7.1.1.5(c)(1)) (Any position is acceptable)
- ☒ 2. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** have to be attached by the vehicle user to the seat belt webbing, retractor, or any other part of the vehicle. (S7.1.1.5 (a))
☒ Yes — Pass
☐ No — Fail
- ☒ 3. Does the lap belt portion of the seat belt in the forward-facing seat or seat that can be adjusted to forward-facing consist of a locking device that does **NOT** require inverting, twisting or deforming of the belt webbing. (S7.1.1.5 (a))
☒ Yes — Pass
☐ No — Fail
- ☒ 4. Buckle the seat belt. (S7.1.1.5(c)(1))
- ☒ 5. Locate a reference point A on the seat belt buckle. (S7.1.1.5(c)(2))
- ☒ 6. Locate a reference point B on the attachment hardware or retractor assembly at the other end of the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒ 7. Does the vehicle user need to take some action to activate the locking feature on the lap belt portion of the seat belt in any forward-facing seat or seat that can be adjusted to forward-facing?
☒ Yes, go to 7.1
☐ No, go to 8
- ☒ 7.1 Does the vehicle owner's manual include a description in words and/or diagrams describing how to activate the locking feature so that the seat belt assembly can tightly secure a child restraint system and how to deactivate the locking feature to remove the child restraint system. (S7.1.1.5(b))
☒ Yes — Pass
☐ No — Fail
- ☒ 8. Adjust the lap belt or lap belt portion of the seat belt assembly according to any procedures recommended in the vehicle owner's manual to activate any locking feature so that the webbing between points A and B is at the maximum length allowed by the belt system. (S7.1.1.5(c)(2) & S7.1.1.5(c)(1))

- ☒ 9. Measure and record the distance between points A and B along the longitudinal centerline of the webbing for the lap belt or lap belt portion of the seat belt assembly. (S7.1.1.5(c)(2))
- ☒ Measured distance between A and B (inches): 63 3/4
- ☒ 10. Readjust the belt system so that the webbing between points A and B is at any length that is 5 inches or more shorter than the maximum length of the webbing. (S7.1.1.5(c)(3))
- ☒ 11. To the lap belt or lap belt portion of the seat belt assembly, apply a preload of 10 pounds using the webbing tension pull device in Figure 5. Apply the load in a vertical plane parallel to the longitudinal axis of the vehicle and passing through the seating reference point of the designated seating position. Apply the preload in a horizontal direction toward the front of the vehicle with a force application angle of not less than 5 degrees nor more than 15 degrees above the horizontal. (S7.1.1.5(c)(4))
- ☒ Measured force application angle (Spec. 5-15 degrees): 10
- ☒ 12. Measure the length between points A and B along the longitudinal centerline of the webbing while the preload is being applied. (S7.1.1.5(c)(4))
- ☒ Measured distance between A and B (inches): 49 1/2
- ☒ 13. Increase the load to 50 pounds at a rate of no more than 50 pounds per second. Attain the load in not more than 5 seconds. (If webbing sensitive emergency locking retractors are installed as part of the lap belt or lap belt portion of the seat belt assembly, apply the load at a rate less than the threshold value for lock-up specified by the manufacturer.) Maintain the load for at least 5 seconds. Measure and record the distance between points A and B along the longitudinal centerline of the webbing. (S7.1.1.5(c)(5))
- ☒ Record onset rate (lb/sec) (spec. 10 to 50 lb/sec) (S7.1.1.5(c)(5)): 10
- ☒ Measured distance between A and B (inches) (S7.1.1.5(c)(6)): 49 1/2
- ☒ 14. Subtract the measurement in 13 from the measurement in 12. Is the difference 2 inches or less? (S7.1.1.5(c)(7))
- ☒ 13 - 12 = 0
- ☒ Yes - Pass
- ☐ No - Fail
- ☒ 15. Subtract the measurement in 9 from the measurement in 13. Is the difference 3 inches or more? (S7.1.1.5(c)(8))
- ☒ 9 - 13 = 14 1/4
- ☒ Yes - Pass
- ☐ No - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:

Wayne J. Galt

Date:

6/2/03

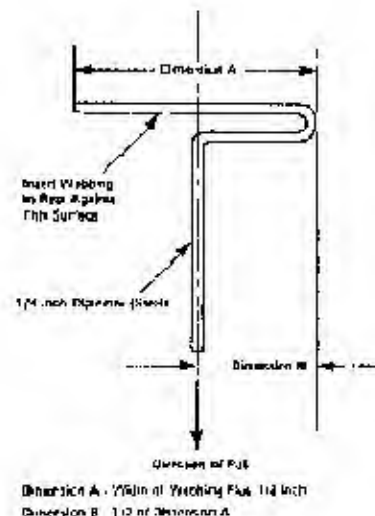


Figure 5. - Webbing Tension Pull Device

DATA SHEET 9

FMVSS 208 SEAT BELT WARNING SYSTEM CHECK (\$7.3)

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Wayne Dahlke

NHTSA No.: C35107
 Test Date: 6/5/03

- | | | |
|-------------------------------------|-----|--|
| <input checked="" type="checkbox"/> | 1. | The occupant is in the driver's seat. |
| <input checked="" type="checkbox"/> | 2. | The seat belt is in the stowed position. |
| <input checked="" type="checkbox"/> | 3. | The key is in the "on" or "start" position. |
| <input checked="" type="checkbox"/> | 4. | The time duration of the audible signal beginning with key "on" or "start" is
Seconds: 6.0 |
| <input checked="" type="checkbox"/> | 5. | The occupant is in the driver's seat. |
| <input checked="" type="checkbox"/> | 6. | The seat belt is in the stowed position. |
| <input checked="" type="checkbox"/> | 7. | The key is in the "on" or "start" position. |
| <input checked="" type="checkbox"/> | 8. | The time duration of the warning light beginning with key "on" or "start" is
Seconds: Stays On > 60 seconds |
| <input checked="" type="checkbox"/> | 9. | The occupant is in the driver's seat. |
| <input checked="" type="checkbox"/> | 10. | The seat belt is in the latched position and with at least 4 inches of belt webbing extended. |
| <input checked="" type="checkbox"/> | 11. | The key is in the "on" or "start" position. |
| <input checked="" type="checkbox"/> | 12. | The time duration of the audible signal beginning with key "on" or "start" is
Seconds: 0.0 |
| <input checked="" type="checkbox"/> | 13. | The occupant is in the driver's seat. |
| <input checked="" type="checkbox"/> | 14. | The seat belt is in the latched position and with at least 4 inches of belt webbing extended. |
| <input checked="" type="checkbox"/> | 15. | The key is in the "on" or "start" position. |
| <input checked="" type="checkbox"/> | 16. | The time duration of the warning light beginning with key "on" or "start" is
Seconds: 0.0 |
| <input checked="" type="checkbox"/> | 17. | Complete the following table with the data from 4, 8, 12, and 16 to determine which option is used. |

		Warning light	Warning light specification	Audible signal	Audible signal specification*
S7.3 (a)(1)	Belt latched & key on or start	Item 16: 0.0	0 seconds*	Item 12: 0.0	0 seconds**
	Belt stowed & key on or start	Item 8: Stays On > 60 seconds	60 seconds minimum	Item 4: 6.0	4 to 8 seconds
S7.3 (a)(2)	Belt latched & key on or start	Item 16:	0 seconds*	Item 12:	0 seconds**
	Belt stowed & key on or start	Item 8:	60 seconds minimum	Item 4:	4 to 8 seconds

* 49 USCS @ 30124 does NOT allow an audible signal to operate for more than 8 seconds.

** 0 seconds means the light or audible signal are NOT permitted to operate under these conditions.
 See 7/12/03 interpretation to Patrick Raher of Hogan and Hartson

- ☒ 18. The seat belt warning system meets the requirements of (manufacturers may comply with either section)
- | | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | S7.3 (a)(1) |
| <input type="checkbox"/> | S7.3 (a)(2) |
| <input type="checkbox"/> | FAIL – does not meet the requirements of either option |
- ☒ 19. Note wording of visual warning: (S7.3(a)(1) and S7.3(a)(2))
- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | Fasten seat belts |
| <input type="checkbox"/> | Fasten belts |
| <input checked="" type="checkbox"/> | Symbol 101 |
| <input type="checkbox"/> | FAIL – does not used any of the above wording or symbol |

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Stahl

Date: 6/2/03

DATA SHEET 10
BELT CONTACT FORCE (S7.4.3)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Left Rear Passenger
-------------------------------------	----------------------------

- ☒ 1.

Does the vehicle incorporate a webbing tension-relieving device?

☐ Yes, this form is complete
☒ No, continue with this check sheet
- ☒ 2.

Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)

☒ N/A, no lumbar adjustment
- ☒ 3.

Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)

☒ N/A, no additional support adjustment
- ☒ 4.

Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)

☒ N/A, no independent fore-aft seat cushion adjustment
☐ No - Fail
- ☒ 5.

If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)

☒ N/A, no independent seat cushion height adjustment
- ☒ 6.

If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)

☒ N/A, the seat does not have a fore-aft adjustment
- ☒ 7.

Put the seat in its full rearward position. (S16.2.10.3.1)

☒ N/A, no seat height adjustment
- ☒ 8.

If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
- ☒ 9.

Draw a horizontal reference line on the side of the seat cushion.
- ☒ 10.

N/A, the seat does not have a fore-aft adjustment.

Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.

☐ Mid position
 If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: Not Adjustable

- ☒ 11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)
- ☒ N/A, no adjustments
- ☒ Reference line angle as tested:
- ☒ 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
- ☒ N/A, no seat back angle adjustment
- ☒ Manufacturer's design seat back angle: Not Adjustable
- ☒ Tested seat back angle: Not Adjustable
- ☒ 13. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- ☒ 14. Fasten the seat belt latch.
- ☒ 15. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- ☒ 16. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
- ☒ Contact Force (lb): 0.5
- ☒ 0.0 to 0.7 pounds – Pass
- ☐ Greater than 0.7 pounds – Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Zuhl

Date: 6/2/03

DATA SHEET 10
BELT CONTACT FORCE (S7.4.3)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	<u>Center Rear Passenger</u>
-------------------------------------	------------------------------

- ☒

1. Does the vehicle incorporate a webbing tension-relieving device?

☐ Yes, this form is complete
☒ No, continue with this check sheet
- ☒

2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)

☒ N/A, no lumbar adjustment
- ☒

3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)

☒ N/A, no additional support adjustment
- ☒

4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)

☒ N/A, no independent fore-aft seat cushion adjustment
☐ No - Fail
- ☒

5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)

☒ N/A, no independent seat cushion height adjustment
- ☒

6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)

☒ N/A, the seat does not have a fore-aft adjustment
- ☒

7. Put the seat in its full rearward position. (S16.2.10.3.1)

☒ N/A, no seat height adjustment
- ☒

8. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)

☒ N/A, the seat does not have a fore-aft adjustment
- ☒

9. Draw a horizontal reference line on the side of the seat cushion.

☒ N/A, the seat does not have a fore-aft adjustment
- ☒

10. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.

☐ Mid position
☐ If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: Not Adjustable

- ☒ 11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)
- ☒ N/A, no adjustments
- ☒ Reference line angle as tested:
- ☒ 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
- ☒ N/A, no seat back angle adjustment
- ☒ Manufacturer's design seat back angle: Not Adjustable
- ☒ Tested seat back angle: Not Adjustable
- ☒ 13. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- ☒ 14. Fasten the seat belt latch.
- ☒ 15. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- ☒ 16. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
- ☒ Contact Force (lb): 0.6
- ☒ 0.0 to 0.7 pounds – Pass
- ☐ Greater than 0.7 pounds - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:

Wayne Stahl

Date:

6/2/03

DATA SHEET 10
BELT CONTACT FORCE (S7.4.3)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

Test all Type 2 seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Right Rear Passenger
------------------------------	----------------------

- ☒

1. Does the vehicle incorporate a webbing tension-relieving device?

☐ Yes, this form is complete
☒ No, continue with this check sheet
- ☒

2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)

☒ N/A, no lumbar adjustment
- ☒

3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)

☒ N/A, no additional support adjustment
- ☒

4. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)

☒ N/A, no independent fore-aft seat cushion adjustment
☐ No - Fail
- ☒

5. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)

☒ N/A, no independent seat cushion height adjustment
- ☒

6. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)

☒ N/A, the seat does not have a fore-aft adjustment
- ☒

7. Put the seat in its full rearward position. (S16.2.10.3.1)

☒ N/A, no seat height adjustment
- ☒

8. If the seat height is adjustable, put it in the full down position. (S16.2.10.3.1)
- ☒

9. Draw a horizontal reference line on the side of the seat cushion.
- ☒

10. N/A, the seat does not have a fore-aft adjustment:
- ☒

Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the midpoint), and R for full rearward.
- ☐

Mid position
- ☐

If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat: Not Adjustable

- ☒ 11. Using only the controls that change the seat in the fore-aft direction, place the seat in the full rearward position and then place the seat in the middle fore-aft position for this test. (S8.1.2)
- ☒ N/A, no adjustments
- ☒ Reference line angle as tested:
- ☒ 12. If seat adjustments other than fore-aft are present and the horizontal reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2.1)
- ☒ N/A, no seat back angle adjustment
- ☒ Manufacturer's design seat back angle: Not Adjustable
- ☒ Tested seat back angle: Not Adjustable
- ☒ 13. Position the test dummies according to dummy position placement instructions in Appendix B and include the positioning check sheets.
- ☒ 14. Fasten the seat belt latch.
- ☒ 15. Pull either 12 inches of belt webbing or the maximum available amount of belt webbing, whichever is less, from the retractor and then release it, allowing the belt webbing to return to the dummy's chest.
- ☒ 16. Locate the point where the centerline of the upper torso belt webbing crosses the midsagittal line on the dummy's chest. At that point pull the belt webbing out 3 inches from the dummy's chest and release until it is within one inch from the dummy's chest. (S10.8) Using a force measuring gage with a full scale range of no more than 1.5 pounds, measure the contact force perpendicular to the dummy's chest exerted by the belt webbing.
- ☒ Contact Force (lb): 0.5
- ☒ 0.0 to 0.7 pounds - Pass
- ☐ Greater than 0.7 pounds - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Gahl

Date: 6/2/03

DATA SHEET 12
SEAT BELT RETRACTION (S7.4.5)

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Wayne Dahlke

NHTSA No.: C35107
 Test Date: 6/5/03

Test all front outboard seat belts other than those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:

GVWR:

- X**

1. Is the vehicle a passenger car or walk-in van-type vehicle?

☒ Yes, this form is complete
☐ No
2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)

☐ N/A, no lumbar adjustment
3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2)

☐ N/A, no additional support adjustment
4. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S16.2.10.3.1)

☐ N/A, no independent fore-aft seat cushion adjustment
5. If the seat cushion height adjusts independent of the seat back, set this adjustment to the full down position. (S16.2.10.3.1)

☐ N/A, no independent seat cushion height adjustment
6. Put the seat in its full rearward position.

☐ N/A, the seat does not have a fore-aft adjustment
7. If the seat height is adjustable, put it in the full down position. (S8.1.2)

☐ N/A, no seat adjustment
8. Draw a horizontal line on the side of the seat cushion.
9. Using only the controls that change the seat in the fore-aft direction, mark the fore-aft seat positions. Mark the side of the seat and a reference position directly below on a part of the vehicle that does not adjust. For manual seats, move the seat forward one detent at a time and mark each detent as was done for the full rearward position. For power seats, mark only the full rearward, middle, and full forward positions. Label three of the positions with the following: F for full forward, M for mid-position (if there is no mid position, label the closest adjustment position to the rear of the mid-point), and R for full rearward.

☐ N/A, the seat does not have a fore-aft adjustment.
10. Using only the controls that change the seat in the fore-aft direction, place the seat in the middle fore-aft position. (S8.1.2)
- If there is no mid position, put the seat in the closest adjustment position to the rear of the midpoint. Describe the location of the seat:
11. If seat adjustments, other than fore-aft, are present and the reference line is no longer horizontal, use those adjustments to maintain the reference line as closely as possible to the horizontal. (S16.2.10.3.2)

☐ N/A - no seat adjustment

- ☐ Pelvic angle (20° to 25°) (S10.4.2.2)
- ☐ 20. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
Measured distance (10.6 inches) (S10.5):
- ☐ 21. To the extent practicable keep the thighs and the legs in a vertical plane (S10.5) and rest the thighs on the seat cushion while resting the feet on the floorpan or toe board.
- ☐ 22. Fasten the seat belt around the dummy.
- ☐ 23. Remove all slack from the lap belt portion. (S10.9)
- ☐ 24. Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)
- ☐ 25. Apply a 2 to 4 pound tension load to the lap belt. (S10.9)
Pound load applied:
- ☐ 26. Is the belt system equipped with a tension relieving device?
☐ Yes, continue
☐ No, go to 26
- ☐ 26.1 Introduce the maximum amount of slack into the upper torso belt that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9). Go to 25.
- ☐ 27. Check the statement that applies to this test vehicle:
- ☐ 27.1 Check the statement that applies to this test vehicle:
The torso and lap belt webbing of the seat belt system automatically retracts to a stowed position when the adjacent vehicle door is in an open position and the seat belt latch plate is released.
- ☐ 27.2 ☐ Pass
The torso and lap belt webbing of the seat belt system automatically retracts when the seat belt latch plate is released.
- ☐ 27.3 ☐ Pass
☐ Neither A or B apply
☐ Fail
- ☐ 28. With the webbing and hardware in the stowed position are the webbing and hardware prevented from being pinched when the door is closed?
☐ Yes - Pass
☐ No - Fail
- ☐ 29. If this test vehicle has an open body (without doors) and has a belt system with a tension-relieving device, does the belt system fully retract when the tension-relieving device is deactivated?
☐ N/A
☐ Yes - Pass
☐ No - Fail

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Zuhl

Date: 6/2/03

DATA SHEET 13

SEAT BELT GUIDES AND HARDWARE (S7.4.6)

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Wayne Dahlke

NHTSA No.: C35107
 Test Date: 6/5/03

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Left Rear Passenger
------------------------------	---------------------

- ☒

1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))

☐ Yes, this form is complete
☒ No, go to 2
- ☒

2. Is the seat removable? (S7.4.6.1 (b))

☐ Yes, this form is complete
☒ No, go to 3
- ☒

3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))

☐ Yes, this form is complete
☒ No, go to 4
- ☒

4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))

☐ Yes, go to 5
☒ No, this form is complete
- ☐

5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))

☐ Yes – Pass
☐ No – Fail
- ☐

Identify the part(s) on top or above the seat.

☐ Seat belt latch plate
☐ Buckle
☐ Seat belt webbing
- ☐

6. Are the remaining two seat belt parts accessible under normal conditions?

☐ Yes – Pass
☐ No – Fail
- ☐

7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)

☐ Yes – Pass
☐ No – Fail
- ☐

8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)

- | | |
|--|---|
| | <input type="checkbox"/> Yes – Pass
<input type="checkbox"/> No – Fail |
|--|---|
- ☐ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat; when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
- | | |
|--|---|
| | <input type="checkbox"/> Yes – Pass
<input type="checkbox"/> No – Fail |
|--|---|
- ☐ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
- | | |
|--|---|
| | <input type="checkbox"/> Yes – Pass
<input type="checkbox"/> No – Fail
<input type="checkbox"/> N/A – Rear seat |
|--|---|

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Zahler

Date: 6/2/03

DATA SHEET 13

SEAT BELT GUIDES AND HARDWARE (S7.4.6)

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Wayne Dahlke

NHTSA No.: C35107
 Test Date: 6/5/03

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	Center Rear Passenger
------------------------------	-----------------------

- ☒

1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))

☐ Yes, this form is complete
☒ No, go to 2
- ☒

2. Is the seat removable? (S7.4.6.1(b))

☐ Yes, this form is complete
☒ No, go to 3
- ☒

3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))

☐ Yes, this form is complete
☒ No, go to 4
- ☒

4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))

☒ Yes, go to 5
☐ No, this form is complete
- ☒

5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))

☒ Yes – Pass
☐ No – Fail

Identify the part(s) on top or above the seat.

☒ Seat belt latch plate
☐ Buckle
☒ Seat belt webbing
- ☒

6. Are the remaining two seat belt parts accessible under normal conditions?

☒ Yes – Pass
☐ No – Fail
- ☒

7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)

☒ Yes – Pass
☐ No – Fail
- ☒

8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)

- ☒ Yes – Pass
☐ No – Fail
- ☒ 9. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
- ☒ Yes – Pass
☐ No – Fail
- ☒ 10. Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
- ☐ Yes – Pass
☐ No – Fail
☒ N/A – Rear seat

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Fahl

Date: 6/2/03

DATA SHEET 13

SEAT BELT GUIDES AND HARDWARE (S7.4.6)

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Wayne Dahlke

NHTSA No.: C35107
 Test Date: 6/5/03

Test seat belts except those in walk-in van-type vehicles and those at front outboard designated seating positions in passenger cars. Complete a form for each applicable seat belt.

DESIGNATED SEATING POSITION:	<u>Right Rear Passenger</u>
------------------------------	-----------------------------

- X**

1. Is the seat cushion movable so that the seat back serves a function other than seating? (S7.4.6.1 (b))

☐ Yes, this form is complete
☒ No, go to 2
- X**

2. Is the seat removable? (S7.4.6.1(b))

☐ Yes, this form is complete
☒ No, go to 3
- X**

3. Is the seat movable so that the space formerly occupied by the seat can be used for a secondary function? (S7.4.6.1(b))

☐ Yes, this form is complete
☒ No, go to 4
- X**

4. Is the webbing designed to pass through the seat cushion or between the seat cushion and seat back? (S7.4.6.1(a))

☐ Yes, go to 5
☒ No, this form is complete
5. Does one of the following three parts, the seat belt latch plate, the buckle, or the seat belt webbing, stay on top of or above the seat cushion under normal conditions (i.e., conditions other than when belt hardware is intentionally pushed behind the seat by a vehicle occupant)? (S7.4.6.1(a))

☐ Yes – Pass
☐ No – Fail
- Identify the part(s) on top or above the seat.

☐ Seat belt latch plate
☐ Buckle
☐ Seat belt webbing
6. Are the remaining two seat belt parts accessible under normal conditions?

☐ Yes – Pass
☐ No – Fail
7. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the belt is completely retracted or, if the belt is nonretractable, the belt is unlatched. (S7.4.6.2)

☐ Yes – Pass
☐ No – Fail
8. The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat is moved to any position to which it is designed to be adjusted. (S7.4.6.2)

- ☐ 9.

<input type="checkbox"/>	Yes – Pass
<input type="checkbox"/>	No – Fail

 The buckle and latch plate do not pass through the guides or conduits provided and fall behind the seat when the seat back, if foldable, is folded forward as far as possible and then moved backward into position. (S7.4.6.2)
- ☐ 10.

<input type="checkbox"/>	Yes – Pass
<input type="checkbox"/>	No – Fail

 Is the inboard receptacle end of the seat belt assembly, installed in the front outboard designated seating position, accessible with the center armrest in any position to which it can be adjusted (without moving the armrest)? (S7.4.6.2)
- | | |
|--------------------------|-----------------|
| <input type="checkbox"/> | Yes – Pass |
| <input type="checkbox"/> | No – Fail |
| <input type="checkbox"/> | N/A – Rear seat |

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Zahler

Date: 6/2/03

DATA SHEET 14

MARKING OF REFERENCE POINTS FOR VARIOUS TEST POSITIONS AND POINTS

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Chris Novak

NHTSA No.: C35107
 Test Date: 5/5/03

1. Driver Designated Seating Position:

- | | | |
|-------------------------------------|------|--|
| <input checked="" type="checkbox"/> | 1.1 | Position the seat's adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions. (S16.2.10.1) |
| | | <input checked="" type="checkbox"/> N/A – No lumbar adjustment |
| <input checked="" type="checkbox"/> | 1.2 | Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position (S16.2.10.2) |
| | | <input checked="" type="checkbox"/> N/A – No additional support adjustment |
| <input checked="" type="checkbox"/> | 1.3 | Mark a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion. |
| <input checked="" type="checkbox"/> | 1.4 | Draw a line (seat cushion reference line) through the seat cushion reference point. |
| <input checked="" type="checkbox"/> | 1.5 | Using only the controls that primarily move the seat in the fore-aft direction, move the seat cushion reference point to the rearmost position. |
| <input checked="" type="checkbox"/> | 1.6 | If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position (S16.2.10.3) |
| | | <input checked="" type="checkbox"/> N/A – No independent fore-aft seat cushion adjustment |
| <input checked="" type="checkbox"/> | 1.7 | Using any part of any control, other than the parts just used for fore-aft positioning, determine the range of angles of the seat cushion reference line and set the seat cushion reference line at the mid-angle. |
| | | <input checked="" type="checkbox"/> Maximum Angle: Zero Degrees |
| | | <input checked="" type="checkbox"/> Minimum Angle: Zero Degrees |
| | | <input checked="" type="checkbox"/> Mid-angle: Zero Degrees |
| <input checked="" type="checkbox"/> | 1.8 | If the seat and/or seat cushion height is adjustable, use any part of any control other than those which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-angle found in 1.7. |
| | | <input checked="" type="checkbox"/> N/A – No seat height adjustment |
| <input checked="" type="checkbox"/> | 1.9 | Using only the controls that primarily move the seat in the fore-aft direction, verify the seat is in the rearmost position. |
| <input checked="" type="checkbox"/> | 1.10 | Using only the controls that primarily move the seat in the fore-aft direction, mark for future reference the fore-aft seat positions. Mark each position so that there is a visual indication when the seat is at a particular position. For manual seats, move the seat forward one detent at a time and mark each detent. For power seats, mark only the rearmost, middle, and foremost positions. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the closest adjustment position to the rear of the mid-point), and R for rearmost. |
| <input checked="" type="checkbox"/> | 1.11 | Use only the controls that primarily move the seat in the fore-aft direction to place the seat in the rearmost position. |
| <input checked="" type="checkbox"/> | 1.12 | Using any controls, other than the controls that primarily move the seat and/or seat cushion in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.7. |
| <input checked="" type="checkbox"/> | 1.13 | Using only the controls that primarily move the seat and/or seat cushion in the fore-aft direction, place the seat in the mid-fore-aft position. |

- ☒ 1.14 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.7.
- ☒ 1.15 Using only the controls that change the seat in the fore-aft direction, place the seat in the foremost position.
- ☒ 1.16 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 1.7.
- ☒ 1.17 Visually mark for future reference the seat back angle, if adjustable, at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer.
- ☐ N/A – No seat back angle adjustment
- ☒ Manufacturer's design seat back angle: 5th Notch Rearward; 1st as One; 1.0° On Headrest Post
- ☒ Actual seat back angle: 5th Notch Rearward; 1st as One; 0.9° on Headrest Post
- ☒ 1.18 Is the seat a bucket seat?
- ☒ Yes, go to 1.18.1 and skip 1.18.2
- ☐ No, go to 1.18.2 and skip 1.18.1
- 1.18.1 Bucket seats:
- ☒ Locate and mark for future reference the longitudinal centerline of the seat cushion. The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle. (S16.3.1.10)
- ☒ Record the width of the seat cushion: 520 mm
- ☒ One half the width of the seat cushion is: 260 mm
- ☒ Record the distance from the edge of the seat cushion to the seat mark: 260mm
- 1.18.2 Bench seats:
- ☐ Locate and mark for future reference the longitudinal line on the seat cushion that marks the longitudinal vertical plane through the centerline of the steering wheel.
2. Passenger Designated Seating Position
- ☒ 2.1 Is the seat adjustable independent of the driver seating position?
- ☒ Yes, go to 2.2
- ☐ No, go to 2.18
- ☒ 2.2 Position the seat's adjustable lumbar supports so that the lumbar supports are in the lowest, retracted or deflated adjustment positions (S16.2.10.1, S20.1.9.1, S22.1.7.1)
- ☒ N/A – No lumbar adjustment
- ☒ 2.3 Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S16.2.10.2, S20.1.9.2, S22.1.7.2)
- ☒ N/A – No additional support adjustment
- ☒ 2.4 Mark a point (seat cushion reference point) on the side of the seat cushion that is between 150 mm and 250 mm from the front edge of the seat cushion.
- ☒ 2.5 Draw a line (seat cushion reference line) through the seat cushion reference point.
- ☒ 2.6 Using only the controls that primarily move the seat in the fore-aft direction, move the seat cushion reference point to the rearmost position.
- ☒ 2.7 If the seat cushion adjusts fore-aft, independent of the seat back, use only the controls that primarily move the seat cushion in the fore-aft direction to move the seat cushion reference point to the rearmost position (S16.2.10.3, S20.1.9.3, S22.1.7.3)
- ☒ N/A – No independent fore-aft seat cushion adjustment.

- ☒ 2.8 Using any part of the control, other than the parts just used for fore-aft positioning, determine the range of angles of the seat cushion reference line and set the seat cushion reference line at the mid-angle.
Maximum Angle: Zero Degrees
Minimum Angle: Zero Degrees
Mid-angle: Zero Degrees
- ☒
☒
☒
☒ 2.9 If the seat and/or seat cushion height is adjustable, use any part of any control other than those which primarily move the seat or seat cushion fore-aft, to put the seat cushion reference point in its lowest position with the seat cushion reference line angle at the mid-range angle.
- ☒ N/A – No seat height adjustment
- ☒ 2.10 Using only the controls that primarily move the seat and/or seat cushion in the fore-aft direction, verify the seat is in the rearmost position.
- ☒ 2.11 Using only the controls that primarily move the seat in the fore-aft direction, mark for future reference the fore-aft seat positions. Mark each position so that there is a visual indication when the seat is at a particular position. For manual seats, move the seat forward one detent at a time and mark each detent. For power seats, mark only the rearmost, middle, and foremost positions. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the closest adjustment position to the rear of the mid-point), and R for rearmost.
- ☒ 2.12 Using only the controls that primarily move the seat in the fore-aft direction, place the seat in the rearmost position.
- ☒ 2.13 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 2.8.
- ☒ N/A – No seat height adjustment Go to 2.18
- ☐ 2.14 Using only the controls that primarily move the seat in the fore-aft direction, place the seat in the mid-fore-aft position.
- ☐ 2.15 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 2.8.
- ☐ 2.16 Using only the controls that change the seat in the fore-aft direction, place the seat in the foremost position.
- ☐ 2.17 Using any controls, other than the controls that primarily move the seat in the fore-aft direction, find and visually mark for future reference the maximum, minimum, and middle height of the seat cushion reference point with the seat cushion reference line at the mid-angle determined in 2.8.
- ☒ 2.18 Visually mark for future reference the seat back angle, if adjustable, at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer.
- ☐ N/A – No seat back angle adjustment
- ☐ N/A – The seat back angle adjustment is controlled by the setting of the driver seat back angle.
- ☒ Manufacturer's design seat back angle: 5th Notch Rearward; 1st as One; 1.0° On Headrest Post
- ☒
☒ Actual seat back angle: 5th Notch Rearward; 1st as One; 0.7° On Headrest Post
- ☒
☒ 2.19 Is the seat a bucket seat?
- ☒ Yes, go to 2.19.1 and skip 2.19.2
- ☐ No, go to 2.19.2 and skip 2.19.1

2.19.1 Bucket seats:

- ☒ Locate and mark for future reference the longitudinal centerline of the seat cushion. (S20.2.1.3, S22.2.1.3) The longitudinal centerline of a bucket seat cushion is determined at the widest part of the seat cushion. Measure perpendicular to the longitudinal centerline of the vehicle. (S20.1.10)

Record the width of the seat cushion: 510 mm

One half the width of the seat cushion is: 255 mm

- ☒ Record the distance from the edge of the seat cushion to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.) 255 mm

2.19.2 Bench seats:

- ☐ Locate and mark for future reference the longitudinal centerline of the passenger seat cushion. The longitudinal centerline is the same distance from the longitudinal centerline of the vehicle as the center of the steering wheel. (S20.2.1.3, S22.2.1.3)
- ☐ Record the distance from the longitudinal centerline of the vehicle to the center of the steering wheel:
- ☐ Record the distance from the longitudinal centerline of the vehicle to the longitudinal centerline of the seat cushion. (The vertical plane through this longitudinal centerline is Plane B for suppression.)

☒

3. Head Restraints

- ☐ N/A, vehicle contains automatic head restraints
- ☐ N/A, there is no head restraint adjustment

☒

3.1 Left outboard

☒

3.1.1 Adjust the head restraint to its lowest position. (S16.3.4.2)

☒

3.1.2 Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. Mark the foremost position.

☒

3.1.3 Measure the vertical distance from the top most point of the head restraint to the bottom most point. Locate and mark a horizontal plane through the midpoint of this distance.

☒

Vertical height of head restraint (mm): 190mm

☒

Mid-point height (mm): 95mm

☒

3.2 Right outboard

☒

3.2.1 Adjust the head restraint to its lowest position. (S16.3.4.2)

☒

3.2.2 Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. Mark the foremost position.

☒

3.2.3 Measure the vertical distance from the top most point of the head restraint to the bottom most point. Locate and mark a horizontal plane through the midpoint of this distance.

☒

Vertical height of head restraint (mm): 190mm

☒

Mid-point height (mm): 95mm

☒

4. Steering Wheel

☒

4.1 Is the steering wheel adjustable up and down and/or in and out?

- ☒ Yes, go to 4.2
- ☐ No, this form is complete

☒

4.2 Find and mark for future reference each up and down position. Label three of the positions with the following: H for highest, M for mid-position (if there is no mid-position, label the next lowest adjustment position), and L for lowest.

☐

N/A, steering wheel is not adjustable up and down

☒

4.3 Find and mark for future references each in and out position. Label three of the positions with the following: F for foremost, M for mid-position (if there is no mid-position, label the next rearmost adjustment position), and R for rearmost.

- ☒ 5. ☐ N/A, steering wheel is not adjustable in and out
Driver Low Risk Deployment
- ☒ 5.1 ☒ N/A, no low risk deployment tests scheduled
- ☐ 5.2 Position the steering wheel so the front wheels are in the straight-ahead position. (S26.2.1)
- ☐ 5.3 Position any adjustable parts of the steering controls to the mid-position as determined in item 3 above. If a mid-position adjustment is not achievable, position the controls to the next lowest detent position. (S26.2.1)
- ☐ 5.3 Locate the vertical plane parallel to the vehicle longitudinal centerline through the geometric center of the opening through which the driver air bag deploys into the occupant compartment. This is referred to as "Plane E". (Check determination method below.) (S26.2.6)
- ☐ Plane E determined using manufacturer's information supplied by the COTR. (Include manufacturer's information in the test report.) OR
- ☐ Plane E determined by test lab personnel and approved by the COTR. (Include supporting documentation in the test report.)

	Ey (mm)
"Plane E" Measurement::	
Measured:	
Specified:	
Verify Measured Equals Specified +/- 6mm:	

- ☐ 5.4 Locate the horizontal plane through the highest point of the air bag module cover. This is referred to as "Plane F." (Check determination method below.) (S26.2.6)
- ☐ Plane F determined using manufacturer's information supplied by the COTR. (Include manufacturer's information in the test report.) OR
- ☐ Plane F determined by test lab personnel and approved by the COTR. (Include supporting documentation in the test report.)

	Fz (mm)
"Plane F" Measurement::	
Measured:	
Specified:	
Verify Measured Equals Specified +/- 6mm:	

- ☒ 6. Passenger Low Risk Deployment – Planes C and D
- ☒ 6.1 ☒ N/A, no low risk deployment tests scheduled
- ☐ 6.1 Locate the horizontal plane through the geometric center of the opening through which the right front air bag deploys into the occupant compartment. This is referred to as "Plane C." (Check location method below.) (S22.4.1.3)
- ☐ Plane C located using manufacturer's information supplied by the COTR. (Include manufacturer's information in the test report.) OR
- ☐ Plane C located by test lab personnel and approved by the COTR. (Include supporting documentation in the test report.)

	Cz (mm)
"Plane C" Measurement::	
Measured:	
Specified:	
Verify Measured Equals Specified +/- 6mm:	

- ☐ 6.2 Locate the vertical plane parallel to the vehicle longitudinal centerline through the geometric center of the opening through which the right front air bag deploys into the occupant compartment. This is referred to as "Plane D." (Check determination method below.) (S22.4.1.2)

☐ Plane D determined using manufacturer's information supplied by the COTR.
(Include manufacturer's information in the test report.) OR

☐ Plane D determined by test lab personnel and approved by the COTR.
(Include supporting documentation in the test report.)

	Dy (mm)
"Plane D" Measurement:	
Measured:	
Specified:	
Verify Measured Equals Specified +/- 6mm:	

- ☐ 6.3 Mark the intersection of Planes C and D on the instrument panel.

☐ 7. 5th Female Dummy

Mark a point on the chin of the dummy 40 mm below the center of the mouth. (Chin Point) (S26.2.6)

☐ 8. 6-Year-Old Dummy

Locate and mark a point on the front of the dummy's chest jacket on the midsagittal plane which is 139 mm (5.5 in) \pm 3 mm (\pm 0.1 in) along the surface of the skin down from the top of the skin at the neck line. Designate this point as "Point 1." (S24.4.1.1)

☐ "Point 1" measurement (mm):

☐ 9. 3-Year-Old Dummy

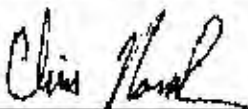
Locate and mark a point on the front of the dummy's chest jacket on the midsagittal plane which is 114 mm (4.5 in) \pm 3 mm (\pm 0.1 in) along the surface of the skin down from the top of the skin at the neck line. Designate this point as "Point 1." (S22.4.1.1)

☐ "Point 1" measurement (mm +/- 3 mm):

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:



Date: 6/2/03

DATA SHEET 30
VEHICLE WEIGHT, FUEL TANK, AND ATTITUDE DATA

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

IMPACT ANGLE:	Zero Degrees		
BELTED DUMMIES (YES/NO):	No		
TEST SPEED:	X 32 to 40 kmph	0 to 48 kmph	0 to 56 kmph
DRIVER DUMMY:	5 TH female	X 50 TH Male	
PASSENGER DUMMY:	5 TH female	X 50 TH Male	

X	1.	Fill the fuel tank to vehicle capacity.																											
X	2.	Record the useable fuel tank capacity supplied by the COTR																											
X		Useable Fuel Tank Capacity supplied by COTR: 50 liters (13.2 gallons)																											
X	3.	Record the fuel tank capacity supplied in the owner's manual.																											
X		Useable Fuel Tank Capacity in owner's manual: 50 liters (13.2 gallons)																											
X	4.	Record the amount of fuel in the fuel tank: 46.6 liters (13.2 gallons)																											
X	5.	Fill the transmission with transmission fluid to the satisfactory range.																											
X	6.	Fill the coolant system to capacity.																											
X	7.	Fill the engine with motor oil to the Max. mark on the dip stick.																											
X	8.	Fill the brake reservoir with brake fluid to its normal level.																											
X	9.	Fill the windshield washer reservoir to capacity.																											
X	10.	Inflate the tires to the tire pressure on the tire placard. If no tire placard is available, inflate the tires to the recommended pressure in the owner's manual.																											
		<table border="1"> <tr> <td>Tire placard pressure:</td> <td>RF:</td> <td>30 psi</td> <td>LF:</td> <td>30 psi</td> <td>RR:</td> <td>30 psi</td> <td>LR:</td> <td>30 psi</td> </tr> <tr> <td>Owner's manual pressure:</td> <td>RF:</td> <td>30 psi</td> <td>LF:</td> <td>30 psi</td> <td>RR:</td> <td>30 psi</td> <td>LR:</td> <td>30 psi</td> </tr> <tr> <td>Actual inflated pressure:</td> <td>RF:</td> <td>30 psi</td> <td>LF:</td> <td>30 psi</td> <td>RR:</td> <td>30 psi</td> <td>LR:</td> <td>30 psi</td> </tr> </table>	Tire placard pressure:	RF:	30 psi	LF:	30 psi	RR:	30 psi	LR:	30 psi	Owner's manual pressure:	RF:	30 psi	LF:	30 psi	RR:	30 psi	LR:	30 psi	Actual inflated pressure:	RF:	30 psi	LF:	30 psi	RR:	30 psi	LR:	30 psi
Tire placard pressure:	RF:	30 psi	LF:	30 psi	RR:	30 psi	LR:	30 psi																					
Owner's manual pressure:	RF:	30 psi	LF:	30 psi	RR:	30 psi	LR:	30 psi																					
Actual inflated pressure:	RF:	30 psi	LF:	30 psi	RR:	30 psi	LR:	30 psi																					
X	11.	Record the vehicle weight at each wheel to determine the unloaded vehicle weight (UVW), i.e. "as delivered" weight).																											
		<table border="1"> <tr> <td>Right Front (kg):</td> <td>340.2</td> <td>Right Rear (kg):</td> <td>220.9</td> </tr> <tr> <td>Left Front (kg):</td> <td>343.4</td> <td>Left Rear (kg):</td> <td>226.8</td> </tr> <tr> <td>Total Front (kg):</td> <td>683.6</td> <td>Total Rear (kg):</td> <td>447.7</td> </tr> <tr> <td>% Total Weight:</td> <td>60.4</td> <td>% Total Weight:</td> <td>39.6</td> </tr> <tr> <td colspan="2">UVW = TOTAL FRONT PLUS TOTAL REAR (KG):</td> <td colspan="2">1131.3</td> </tr> </table>	Right Front (kg):	340.2	Right Rear (kg):	220.9	Left Front (kg):	343.4	Left Rear (kg):	226.8	Total Front (kg):	683.6	Total Rear (kg):	447.7	% Total Weight:	60.4	% Total Weight:	39.6	UVW = TOTAL FRONT PLUS TOTAL REAR (KG):		1131.3								
Right Front (kg):	340.2	Right Rear (kg):	220.9																										
Left Front (kg):	343.4	Left Rear (kg):	226.8																										
Total Front (kg):	683.6	Total Rear (kg):	447.7																										
% Total Weight:	60.4	% Total Weight:	39.6																										
UVW = TOTAL FRONT PLUS TOTAL REAR (KG):		1131.3																											
X	12.	UVW Test Vehicle Attitude: (All dimensions in millimeters)																											
X	12.1	Mark a point on the vehicle above the center of each wheel.																											
X	12.2	Place the vehicle on a level surface.																											
X	12.3	Measure perpendicular to the level surface to the 4 points marked on the body and record the measurements																											
		<table border="1"> <tr> <td>RF:</td> <td>686</td> <td>LF:</td> <td>686</td> <td>RR:</td> <td>705</td> <td>LR:</td> <td>703</td> </tr> </table>	RF:	686	LF:	686	RR:	705	LR:	703																			
RF:	686	LF:	686	RR:	705	LR:	703																						
X	13.	Calculate the Rated Cargo and Luggage Weight (RCLW).																											

<input checked="" type="checkbox"/>	13.1	Does the vehicle have the vehicle capacity weight (VCW) on the certification label or tire placard?																									
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Yes, go to 14.3																								
			No, go to 14.2																								
	13.2	VCW = Gross Vehicle Weight - UVW VCW = _____ - _____ = _____																									
<input checked="" type="checkbox"/>	13.3	VCW = <u>390 kg (860 lbs)</u>																									
<input checked="" type="checkbox"/>	13.4	Does the certification or tire placard contain the Designated Seating Capacity (DSC)?																									
		<input checked="" type="checkbox"/>	Yes, go to 14.6																								
			No, go to 14.5 and skip 14.6																								
	13.5	DSC = Total number of seat belt assemblies = _____																									
<input checked="" type="checkbox"/>	13.6	DSC = <u>5</u>																									
<input checked="" type="checkbox"/>	13.7	RCLW = VCW - (68 kg x DSC) = <u>390kg</u> - (68 kg x <u>5</u>) = <u>50kg</u>																									
<input checked="" type="checkbox"/>	13.8	Is the vehicle certified as a truck, MPV or bus (see the certification label on the door jamb)?																									
			Yes, if the calculated RCLW is greater than 136 kg, use 136 kg as the RCLW. (S8.1.1)																								
		<input checked="" type="checkbox"/>	No, use the RCLW calculated in 14.7																								
<input checked="" type="checkbox"/>	14.	Fully Loaded Weight (100% fuel fill)																									
<input checked="" type="checkbox"/>	14.1	Place the appropriate test dummy in both front outboard seating positions. Driver: <u>5th female</u> <input checked="" type="checkbox"/> <u>50th male</u> Passenger: <u>5th female</u> <input checked="" type="checkbox"/> <u>50th male</u>																									
<input checked="" type="checkbox"/>	14.2	Load the vehicle with the RCLW from 14.7 or 14.8 whichever is applicable.																									
<input checked="" type="checkbox"/>	14.3	Place the RCLW in the cargo area. Center the load over the longitudinal centerline of the vehicle. (S8.1.1 (d))																									
<input checked="" type="checkbox"/>	14.4	Record the vehicle weight at each wheel to determine the Fully Loaded Weight.																									
		<table border="1"> <tr> <td>Right Front (kg):</td> <td>383.7</td> <td>Right Rear (kg):</td> <td>284.4</td> </tr> <tr> <td>Left Front (kg):</td> <td>385.6</td> <td>Left Rear (kg):</td> <td>290.8</td> </tr> <tr> <td>Total Front (kg):</td> <td>769.3</td> <td>Total Rear (kg):</td> <td>575.2</td> </tr> <tr> <td>% Total Weight:</td> <td>57.2</td> <td>% Total Weight:</td> <td>42.8</td> </tr> <tr> <td>% GVW</td> <td>47.3</td> <td>% GVW</td> <td>35.4</td> </tr> <tr> <td colspan="2">FULLY LOADED WEIGHT = TOTAL FRONT PLUS TOTAL REAR:</td> <td colspan="2">1344.5 kg</td> </tr> </table>		Right Front (kg):	383.7	Right Rear (kg):	284.4	Left Front (kg):	385.6	Left Rear (kg):	290.8	Total Front (kg):	769.3	Total Rear (kg):	575.2	% Total Weight:	57.2	% Total Weight:	42.8	% GVW	47.3	% GVW	35.4	FULLY LOADED WEIGHT = TOTAL FRONT PLUS TOTAL REAR:		1344.5 kg	
Right Front (kg):	383.7	Right Rear (kg):	284.4																								
Left Front (kg):	385.6	Left Rear (kg):	290.8																								
Total Front (kg):	769.3	Total Rear (kg):	575.2																								
% Total Weight:	57.2	% Total Weight:	42.8																								
% GVW	47.3	% GVW	35.4																								
FULLY LOADED WEIGHT = TOTAL FRONT PLUS TOTAL REAR:		1344.5 kg																									
<input checked="" type="checkbox"/>	15.	Fully Loaded Test Vehicle Attitude: (All dimensions in millimeters)																									
<input checked="" type="checkbox"/>	15.1	Place the vehicle on a level surface.																									
<input checked="" type="checkbox"/>	15.2	Measure perpendicular to the level surface to the 4 points marked on the body (see 13.1 above) and record the measurements																									
		<table border="1"> <tr> <td>RF:</td> <td>667</td> <td>LF:</td> <td>668</td> <td>RR:</td> <td>670</td> <td>LR:</td> <td>669</td> </tr> </table>		RF:	667	LF:	668	RR:	670	LR:	669																
RF:	667	LF:	668	RR:	670	LR:	669																				
<input checked="" type="checkbox"/>	16.	Drain the fuel system																									
<input checked="" type="checkbox"/>	17.	Run the engine until fuel remaining in the fuel delivery system is used and the engine stops.																									

<input checked="" type="checkbox"/>	18.	Using purple dyed Stoddard solvent having the physical and chemical properties of Type 1 solvent or cleaning fluid, Table 1, ASTM Standard D484-71, "Standard Specifications for Hydrocarbon Dry-cleaning Solvents," fill the fuel tank to 94 percent of useable capacity.																												
<input checked="" type="checkbox"/>		Fuel tank capacity x .94 = <u>50 liters (13.2 gallons)</u> x .94 = <u>46.9 liters (12.4 gallons)</u>																												
<input checked="" type="checkbox"/>		Amount Stoddard added <u>46.6 liters (12.3 gallons)</u> 93%																												
<input checked="" type="checkbox"/>	19.	Crank the engine to fill the fuel delivery system with Stoddard solvent																												
<input checked="" type="checkbox"/>	20.	Calculate the test weight range.																												
<input checked="" type="checkbox"/>	20.1	Calculated Weight = UVW (see 12 above) + RCLW (see 14 above) + 2x(dummy weight) $\underline{1337.3 \text{ kg}} = \underline{1131.3 \text{ kg}} + \underline{50.0 \text{ kg}} + \underline{156.0 \text{ kg}}$																												
<input checked="" type="checkbox"/>	20.2	Test Weight Range = Calculated Weight (- 4.5 kg, - 9 kg.) Max. Test Weight = Calculated Test Weight - 4.5 kg = <u>1332.8 kg</u> Min. Test Weight = Calculated Test Weight - 9 kg = <u>1328.3 kg</u>																												
<input checked="" type="checkbox"/>	21.	Remove the RCLW from the cargo area.																												
<input checked="" type="checkbox"/>	22.	Drain transmission fluid, engine coolant, motor oil, and windshield washer fluid from the test vehicle so that Stoddard solvent leakage from the fuel system will be evident.																												
<input checked="" type="checkbox"/>	23.	Vehicle Components Removed For Weight Reduction: <u>Spare tire, jack, trunk interior, RH rear tail light, hub covers, LH rear seat back, and headrests.</u>																												
<input checked="" type="checkbox"/>	24.	Secure the equipment and ballast in the load carrying area and distribute it, as nearly as possible, to obtain the proportion of axle weight indicated by the gross axle weight ratings and center it over the longitudinal centerline of the vehicle.																												
<input checked="" type="checkbox"/>	25.	If necessary, add ballast to achieve the actual test weight.																												
		N/A																												
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/> Weight of Ballast: 49.0 kg in spare tire well.																												
<input checked="" type="checkbox"/>	26.	Ballast, including test equipment, must be contained so that it will not shift during the impact event or interfere with data collection or interfere with high-speed film recordings or affect the structural integrity of the vehicle or do anything else to affect test results. Care must be taken to assure that any attachment hardware added to the vehicle is not in the vicinity of the fuel tank or lines.																												
<input checked="" type="checkbox"/>	27.	Record the vehicle weight at each wheel to determine the actual test weight. <table border="1" style="width: 100%;"> <tr> <td>Right Front (kg):</td> <td>389.7</td> <td>Right Rear (kg):</td> <td>281.2</td> </tr> <tr> <td>Left Front (kg):</td> <td>388.3</td> <td>Left Rear (kg):</td> <td>289.9</td> </tr> <tr> <td>Total Front (kg):</td> <td>758.0</td> <td>Total Rear (kg):</td> <td>571.1</td> </tr> <tr> <td>% Total Weight:</td> <td>57.0</td> <td>% Total Weight:</td> <td>43.0</td> </tr> <tr> <td>% GVW</td> <td>52.8</td> <td>% GVW</td> <td>48.0</td> </tr> <tr> <td colspan="4">(% GVW = Axle GVW divided by Vehicle GVW)</td> </tr> <tr> <td colspan="3">TOTAL FRONT PLUS TOTAL REAR (kg):</td> <td>1329.1</td> </tr> </table>	Right Front (kg):	389.7	Right Rear (kg):	281.2	Left Front (kg):	388.3	Left Rear (kg):	289.9	Total Front (kg):	758.0	Total Rear (kg):	571.1	% Total Weight:	57.0	% Total Weight:	43.0	% GVW	52.8	% GVW	48.0	(% GVW = Axle GVW divided by Vehicle GVW)				TOTAL FRONT PLUS TOTAL REAR (kg):			1329.1
Right Front (kg):	389.7	Right Rear (kg):	281.2																											
Left Front (kg):	388.3	Left Rear (kg):	289.9																											
Total Front (kg):	758.0	Total Rear (kg):	571.1																											
% Total Weight:	57.0	% Total Weight:	43.0																											
% GVW	52.8	% GVW	48.0																											
(% GVW = Axle GVW divided by Vehicle GVW)																														
TOTAL FRONT PLUS TOTAL REAR (kg):			1329.1																											
<input checked="" type="checkbox"/>	28.	Is the test weight between the Max. Weight and the Min. Weight (See 20.2)?																												
		<input checked="" type="checkbox"/> Yes																												
		No, explain why not.																												

<input checked="" type="checkbox"/>	29.	Test Weight Vehicle Attitude: (all dimensions in millimeters)
<input checked="" type="checkbox"/>	29.1	Place the vehicle on a level surface
<input checked="" type="checkbox"/>	29.2	Measure perpendicular to the level surface to the 4 points marked on the body (see 13 above) and record the measurements RF: 671 LF: 669 RR: 673 LR: 669
<input checked="" type="checkbox"/>	30.	Summary of test attitude
<input checked="" type="checkbox"/>	30.1	AS DELIVERED: RF: 686 LF: 686 RR: 705 LR: 703 AS TESTED: RF: 671 LF: 669 RR: 673 LR: 669 FULLY LOADED: RF: 687 LF: 688 RR: 670 LR: 669
<input checked="" type="checkbox"/>	30.2	Is the "as tested" test attitude equal to or between the "fully loaded" and "as delivered" attitude?
		<input checked="" type="checkbox"/> Yes
		<input type="checkbox"/> No, explain why not.

REMARKS:

I certify that I have read and performed each instruction.

Signature: Wayne Gahl

Date: 6/2/03

DATA SHEET 31
VEHICLE ACCELEROMETER LOCATION

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Wayne Dahlke

NHTSA No.: C35107
Test Date: 6/5/03

IMPACT ANGLE:	Zero Degrees		
BELTED DUMMIES (YES/NO):	No		
TEST SPEED:	<input checked="" type="checkbox"/> 32 to 40 kmph	<input type="checkbox"/> 0 to 48 kmph	<input type="checkbox"/> 0 to 56 kmph
DRIVER DUMMY:	<input type="checkbox"/> 5 th female	<input checked="" type="checkbox"/> 50 th Male	
PASSENGER DUMMY:	<input type="checkbox"/> 5 th female	<input checked="" type="checkbox"/> 50 th Male	

- ☒ 1. Find the location where the vertical plane parallel to the longitudinal centerline of the vehicle and through the center of the left front outboard seating position intersects the left rear seat cross member. Install an accelerometer at this intersection on the rear seat cross member to record x-direction accelerations. Record the location on the following chart.
- ☒ 2. Find the location where the vertical plane parallel to the longitudinal centerline of the vehicle and through the center of the right front outboard seating position intersects the right rear seat cross member. Install an accelerometer at this intersection on the rear seat cross member to record x-direction accelerations. Record the location on the following chart.
- ☒ 3. Find the location where a vertical plane through the longitudinal centerline of the vehicle and a vertical transverse plane through the center of the two wheels on opposite sides of the engine intersect at the top of the engine. Install an accelerometer at this intersection to record x-direction accelerations. Record the location on the following chart.
- ☒ 4. Find the location where a vertical plane through the longitudinal centerline of the vehicle and a vertical transverse plane through the center of the two wheels on opposite sides of the engine intersect the bottom of the engine. Install an accelerometer at this intersection to record x-direction accelerations. Record the location on the following chart.
- ☒ 5. Install an accelerometer on the right front brake caliper to record x-direction accelerations. Record the location on the following chart.
- ☒ 6. Find the location where a vertical plane through the longitudinal centerline of the vehicle intersects the top of the instrument panel. Install an accelerometer at this intersection to record x-direction accelerations. Record the location on the following chart.
- ☒ 7. Install an accelerometer on the left front brake caliper to record x-direction accelerations. Record the location on the following chart.
- ☒ 8. Find the location where a vertical plane through the longitudinal centerline of the vehicle intersects the floor of the trunk. Install an accelerometer on the trunk floor at this intersection to record z-direction accelerations. Record the location on the following chart.

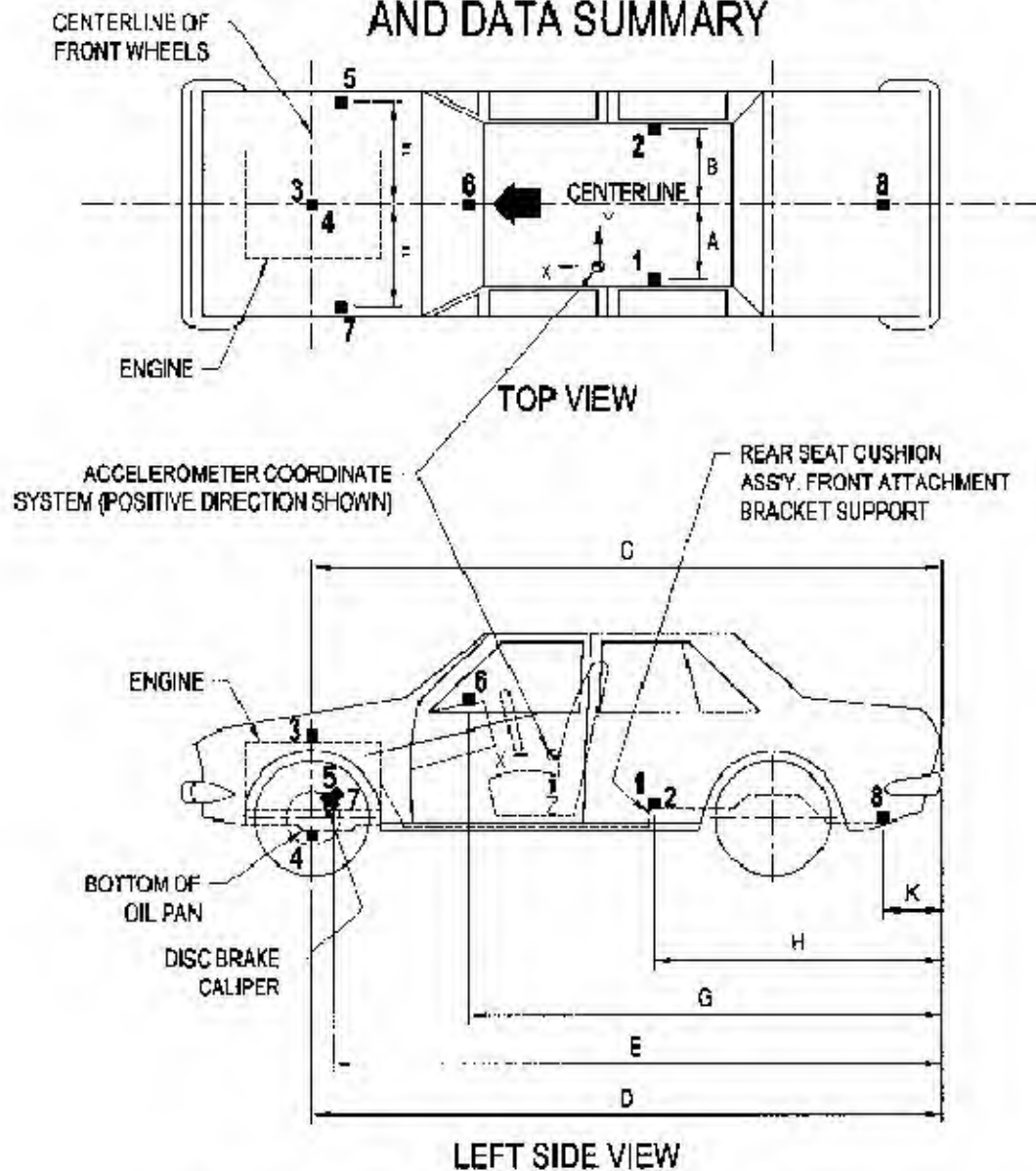
REMARKS: NONE

I certify that I have read and performed each instruction.

Signature: Wayne Dahlke

Date: 6/3/03

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



DIMENSION CORRESPONDING TO THE LETTERS "A" THROUGH "K" ARE
RECORDED IN THE TABLE ON THE FOLLOWING PAGE.
ACCELEROMETERS CORRESPONDING TO THE NUMBERS 1 THROUGH 8 ARE
SPECIFIED ON THE PRECEDING PAGE.

DATA SHEET 31

VEHICLE ACCELEROMETER LOCATION MEASUREMENTS

<u>DIMENSION</u>	<u>LENGTH (inches)</u>
<u>PRETEST VALUES</u>	
<u>A</u>	1778
<u>B</u>	1778
<u>C</u>	3608
<u>D</u>	3752
<u>E</u>	3730
<u>F</u>	3730
<u>G</u>	2994
<u>H</u>	160
<u>POST TEST VALUES</u>	
<u>A</u>	1778
<u>B</u>	1778
<u>C</u>	3586
<u>D</u>	3721
<u>E</u>	3717
<u>F</u>	3726
<u>G</u>	2994
<u>H</u>	160

REMARKS: NONE

DATA SHEET 32
PHOTOGRAPHIC TARGETS

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Chris Novak

NHTSA No.: C35107
Test Date: 6/5/03

IMPACT ANGLE:	Zero Degrees		
BELTED DUMMIES (YES/NO):	No		
TEST SPEED:	<input checked="" type="checkbox"/> 32 to 40 kmph	<input type="checkbox"/> 0 to 48 kmph	<input type="checkbox"/> 0 to 56 kmph
DRIVER DUMMY:	<input type="checkbox"/> 5 TH female	<input checked="" type="checkbox"/> 50 TH Male	
PASSENGER DUMMY:	<input type="checkbox"/> 5 TH female	<input checked="" type="checkbox"/> 50 TH Male	

- ☒ 1. FMVSS 208 vehicle targeting requirements (See Figures 28A and 28B)
- ☒ 1.1 Targets A1 and A2 are on flat rectangular panels.
- ☒ 1.2 Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted at the front on the outboard sides of A1 and A2. The center of each circular target is 100 mm from the one next to it.
- ☒ Distance between targets (mm): 125 mm
- ☒ 1.3 Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted at the back on the outboard sides of on A1 and A2. The center of each circular target is 100 mm from the one next to it.
- ☒ Distance between targets (mm): 125 mm
- ☒ 1.4 The distance between the first circular target at the front of A1 and A2 and the last circular target at the back of A1 and A2 is at least 815 mm.
- ☒ Distance between the first and last circular targets (mm): 864 mm
- ☒ 1.5 Firmly fix target A1 on the vehicle roof in the vertical longitudinal plane that is coincident with the midsagittal plane of the driver dummy.
- ☒ 1.6 Firmly fix target A2 on the vehicle roof in the vertical longitudinal plane that is coincident with the midsagittal plane of the passenger dummy.
- ☒ 1.7 Two circular targets (C1 and C2) at least 90 mm in diameter and with black and yellow quadrants are mounted on the outside of the driver door. The centers of each circular target are at least 610 mm apart.
- ☒ Distance between targets (mm): 610 mm
- ☒ 1.8 Two circular targets (C1 and C2) at least 90 mm in diameter and with black and yellow quadrants are mounted on the outside of the passenger door. The centers of each circular target are at least 610 mm apart.
- ☒ Distance between targets (mm): 610 mm
- ☒ 1.9 Place tape with squares having alternating colors on the top portion of the steering wheel.
- ☒ 1.10 Chalk the bottom portion of the steering wheel
- ☒ 1.11 Is this an offset test?
- ☐ Yes, continue with this section
- ☒ No, go to 2.
- ☐ 1.12 Measure the width of the vehicle.
- Vehicle width (mm):
- ☐ 1.13 Find the centerline of the vehicle. (½ of the vehicle width)
- ☐ 1.14 Find the line parallel to the centerline of the vehicle and 0.1 x vehicle width from the centerline of the vehicle.

- ☐ 1.15 Apply 25 mm wide tape with alternating black and yellow squares parallel to and on each side of the line found in 1.14. The edge of each tape shall be 50 mm from the line found in 1.14. The tape shall extend from the bottom of the bumper to the front edge of the windshield. (Figure 28D)
- ☒ 2. Barrier Targeting
- ☒ 2.1 Fix two stationary targets D1 and D2 to the barrier as shown in the Figure 28A. One target is in the vertical longitudinal plane that is coincident with the midsagittal plane of the driver dummy. The other is in the vertical longitudinal plane that is coincident with the midsagittal plane of the passenger dummy
- ☒ 2.2 Targets D1 and D2 are on a rectangular panel.
- ☒ 2.3 Three circular targets at least 90 mm in diameter and with black and yellow quadrants are mounted on the sides of the rectangular panel away from the longitudinal centerline of the vehicle. The center of each circular target is 100 mm from the one next to it.
- ☒ Distance between circular targets on D1 (mm): 125mm
- ☒ Distance between circular targets on D2 (mm): 125mm
- ☒ 3. FMVSS 208 Dummy Targeting Requirements
- ☒ 3.1 Place a circular target with black and yellow quadrants on both sides of the driver dummy head as close as possible to the center of gravity of the head in the x and z direction (relative to the measuring directions of the accelerometers).
- ☒ 3.2 Place a circular target with black and yellow quadrants on both sides of the passenger dummy head as close as possible to the center of gravity of the head in the x and z direction (relative to the measuring directions of the accelerometers).
- ☒ 3.3 Place a circular target with black and yellow quadrants on the outboard shoulder of the driver dummy. Place the target as high up on the arm as possible at the intersection of the arm and shoulder. The sleeve of the shirt on the dummy may be cut to make the target visible, but do not remove any material.
- ☒ 3.4 Place a circular target with black and yellow quadrants on the outboard shoulder of the passenger dummy. Place the target as high up on the arm as possible at the intersection of the arm and shoulder. The sleeve of the shirt on the dummy may be cut to make the target visible, but do not remove any material.
- ☒ 4. FMVSS 204 Targeting Requirements
- ☒ 4.1 Is an FMVSS 204 indicant test ordered on the "COTR Vehicle Work Order?"
- ☐ Yes, continue with this form.
- ☒ No, this form is complete. (Removed at manufacturer's request with COTR approval)
- ☐ 4.2 Resection panel (Figure 28C)
- ☐ 4.2.1 The panel deviates no more than 6 mm from perfect flatness when suspended vertically
- ☐ 4.2.2 The 8 targets on the panel are circular targets at least 90 mm in diameter and with black and yellow quadrants.
- ☐ 4.2.3 The center of each of the 4 outer targets are placed within 1 mm of the corners of a square measuring 914 mm on each side.
- ☐ 4.2.4 Locate another square with 228 mm sides and with the center of this square coincident with the center of the 914 mm square.
- ☐ 4.2.5 The center of the 4 inner targets are placed at the midpoints of each of the 228 mm sides.
- ☐ 4.3 Place a circular target at least 90 mm in diameter and with black and yellow quadrants on a material (cardboard, metal, etc.) that can be taped to the top of the steering column.
- ☐ 4.4 Tape the target from 4.3 to the top of the steering column in a manner that does not interfere with the movement of the steering column in a crash

REMARKS: NONE

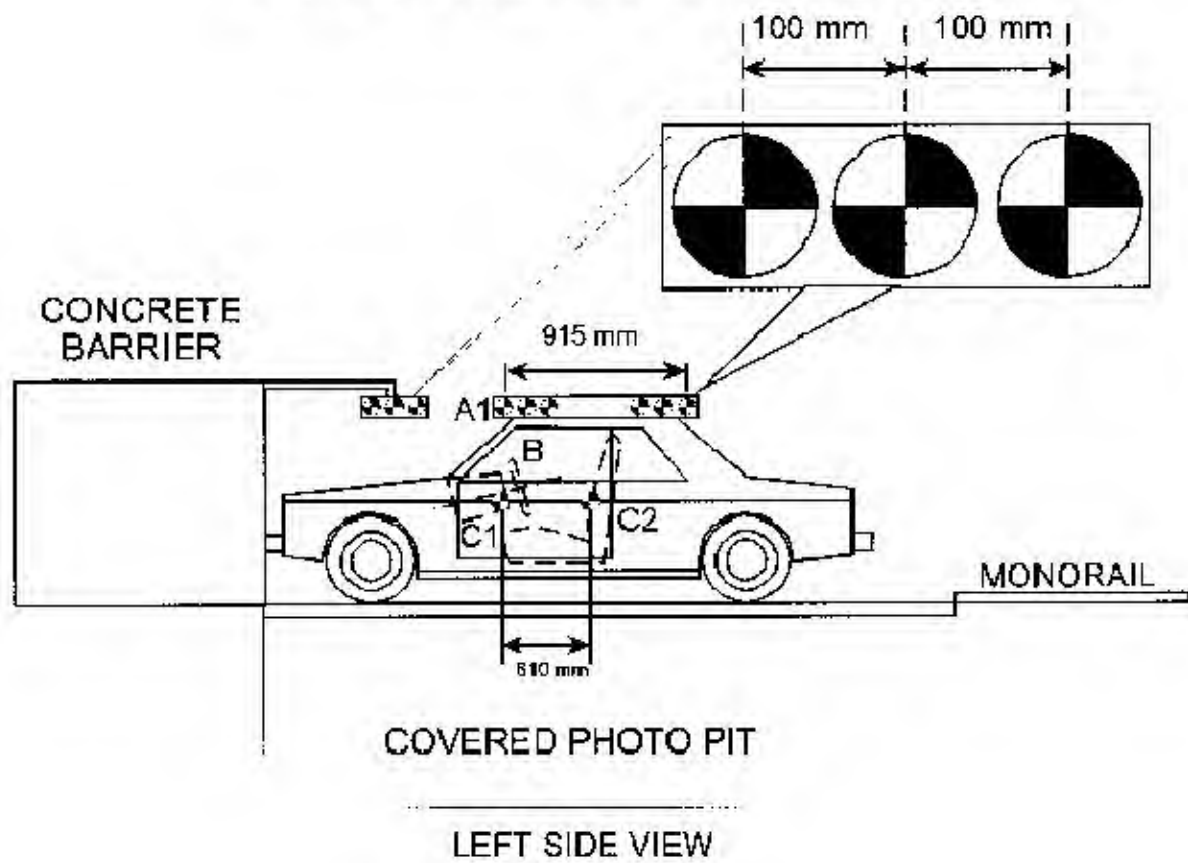
I certify that I have read and performed each instruction.

Signature:

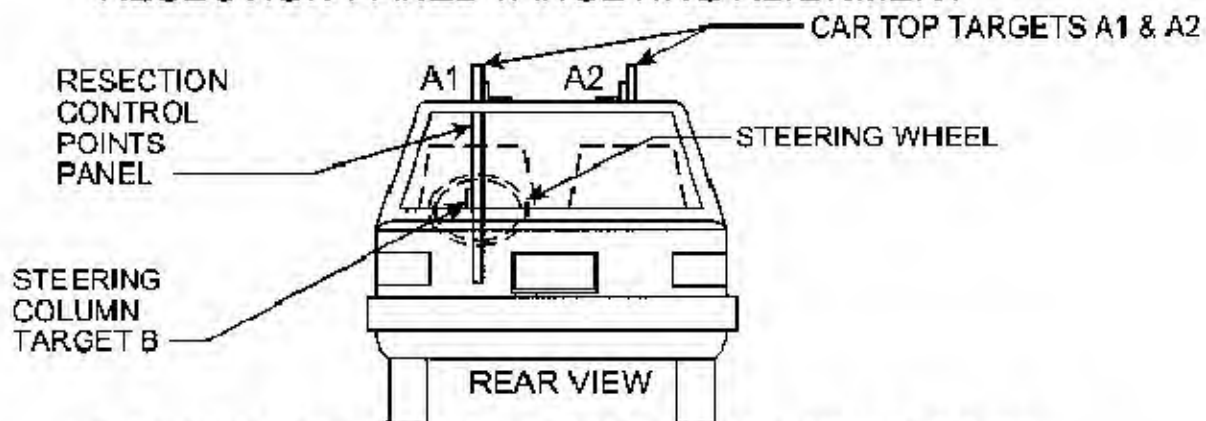
Chris Hand

Date: 8/5/03

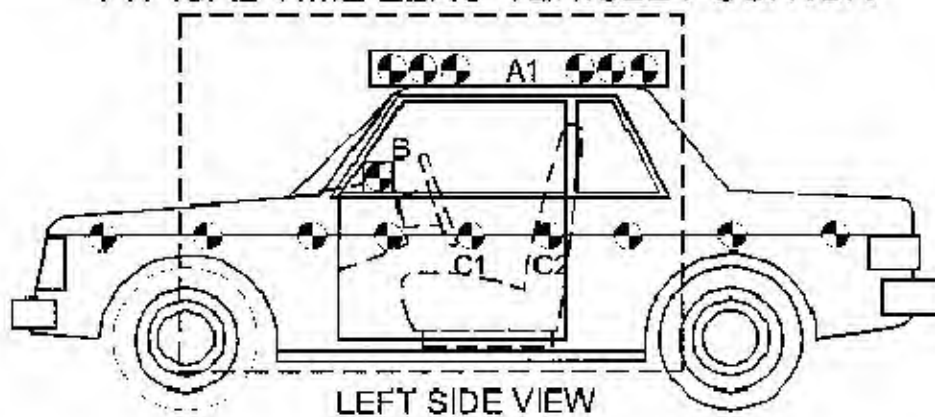
REFERENCE PHOTO TARGETS



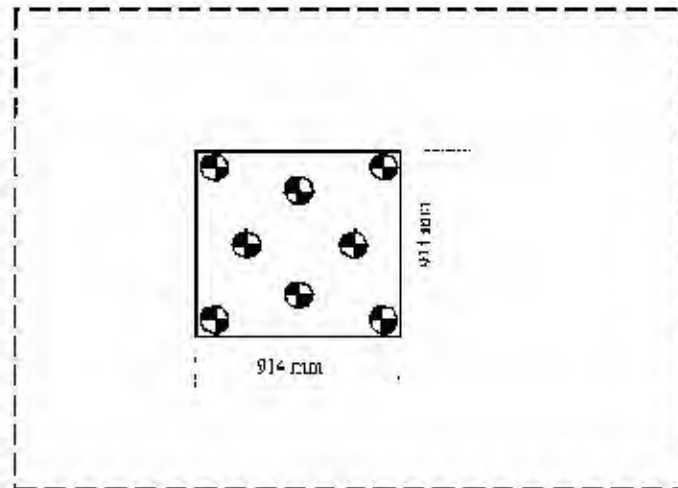
RESECTION PANEL TARGETING ALIGNMENT



TEST RUN STEERING COLUMN CAMERA VIEW OF TYPICAL TIME ZERO VEHICLE POSITION



PRE-RUN STEERING COLUMN HIGH SPEED CAMERA VIEW



LEFT SIDE VIEW

DATA SHEET 33
CAMERA LOCATIONS

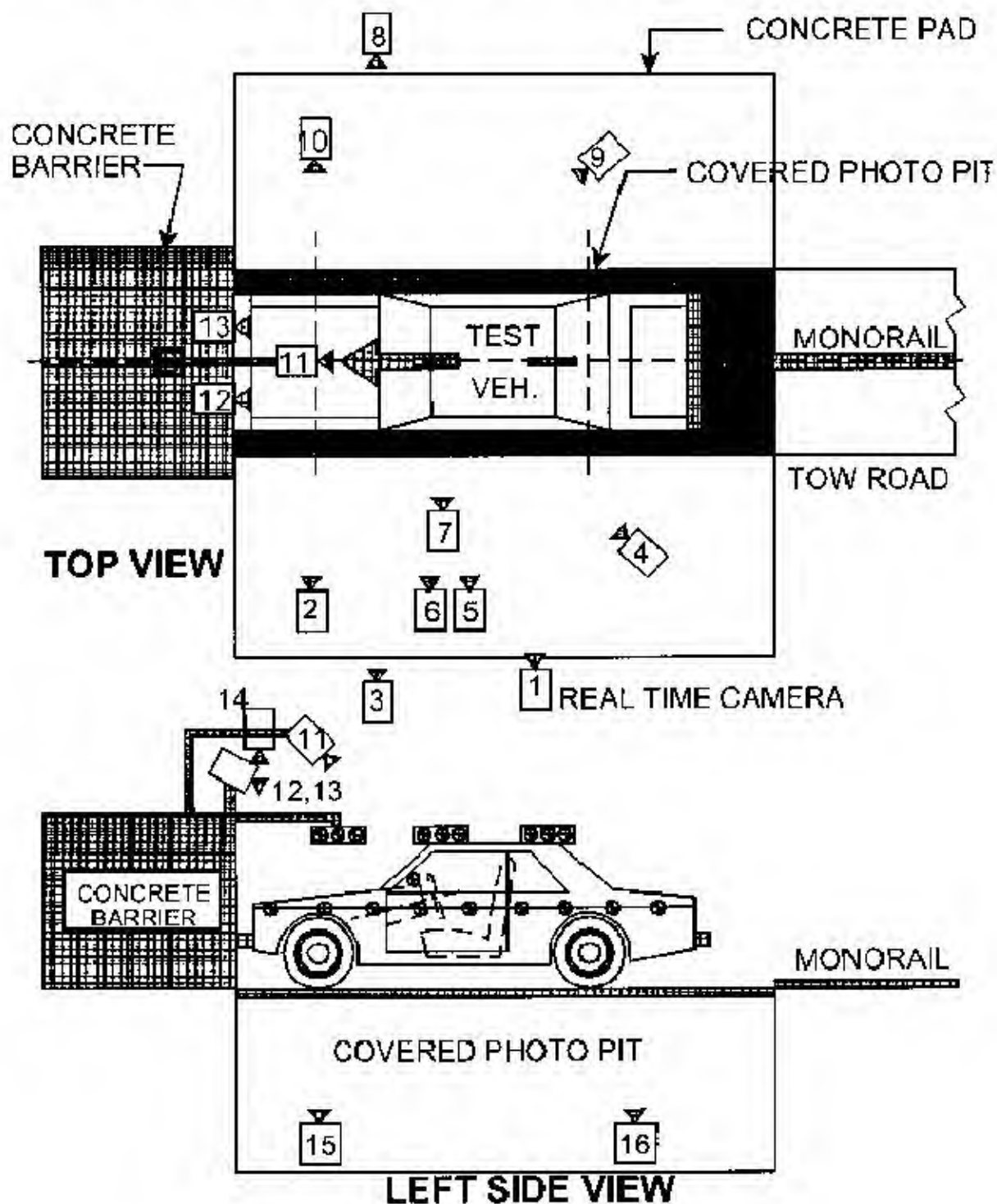
Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Time: 12:28 p.m.

NHTSA No.: C35107
Test Date: 6/5/03

CAMERA NO.	VIEW	CAMERA POSITIONS (mm)*			ANGLE (deg.)	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Real Time Left Side View	N/A	N/A	N/A			13	24
2	Left Side View (Barrier face to front seat backs)	-996	7783	1585	90	7237	25	1005
3	Left Side View (Driver)	-1354	8380	1520	90	7834	13	1020
4	Left Side View (8-post aimed toward center of steering wheel)	-4546	5100	1996			50	1053
5	Left Side View (Steering Column)	-1900	8166	1557	90	7620	25	1005
6	Left Side View (Steering Column)	-1874	8166	1023	90	7620	25	1005
7	Right Side View (Overall)	-1852	-6745	1514			13	1005
8	Right Side View (Passenger)	-1341	-8779	1492	90	8238	35	1087
9	Right Side View (Angle)	-4789	-5626	1983			50	962
10	Right Side View (Front door)	-998	-7480	1406	90	6939	25	1031
11	Front View Windshield	452	0	2635			16	1015
12	Front View Driver	76	465	1643			13	1026
13	Front View Passenger	76	-465	1643			13	1010
14	Overhead Barrier Impact View	N/A	N/A	N/A			Not Used	Not Used
15	Pit Camera Engine View	-1156	0	-5000			13	1036
16	Pit Camera Fuel Tank View	-2167	0	-5000			13	990

*
X - film plane to barrier face
Y - film plane to monorail centerline
Z - film plane to ground

CAMERA POSITIONS FOR FRONTAL IMPACTS



DATA SHEET 34

APPENDIX F

DUMMY POSITIONING PROCEDURES

FOR DRIVER TEST DUMMY CONFORMING TO SUBPART E OF PART 572

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Chris Novak

NHTSA No.: C35107
 Test Date: 6/5/03

IMPACT ANGLE:	Zero: Degrees		
BELTED DUMMIES (YES/NO):	No		
TEST SPEED:	X 32 to 40 kmph	0 to 48 kmph	0 to 56 kmph
DRIVER DUMMY:	5 th female	X 50 th Male	
PASSENGER DUMMY:	5 th female	X 50 th Male	

- ☒ 1. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
☒ N/A – No lumbar adjustment
- ☒ 2. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S20.1.8.2)
☒ N/A – No additional support adjustment
- ☒ 3. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S20.1.9.3)
☒ N/A – No independent fore-aft seat cushion adjustment
- ☒ 4. Use the seat markings determined during the completion of Data Sheet 14 to set the mid-fore-aft position, full down height position and the seat cushion angle. (S8.1.2)
- ☒ 5. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
☒ N/A – No seat back angle adjustment
 Manufacturer's design seat back angle: 5th Notch Rearward; 1st as One; 1.0° On Headrest Post
 Tested seat back angle: 5th Notch Rearward; 1st as One; 0.9° On Headrest Post
- ☒ 6. If adjustable, set the head restraint at the full up and full forward position. Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. (S8.1.3)
☒ N/A – No head restraint adjustment
- ☒ 7. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)
☒ N/A – No adjustable upper seat belt anchorage (Unbelted Test)
 Manufacturer's specified anchorage position:
 Tested anchorage position:
- ☒ 8. Place the adjustable accelerator pedal in the full forward position.
☒ N/A – the accelerator pedal is not adjustable
- ☒ 9. Set the steering wheel hub at the geometric center of the full range of driving positions including any telescoping positions as determined in Data Sheet 14.

- ☒ 10. Place the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings as determined in item 1.18 of Data Sheet 14 and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)
- ☒ 11. Rest the thighs on the seat cushion. (S10.5)
- ☒ 12. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until those three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)
- ☒ 0.080 Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
- 0.236 Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
- 23.2 Pelvic angle (20° to 25°)
- ☒ 13. Is the head level within $\pm 0.5^\circ$? (S10.1)
- ☐ Yes, go to 14
- ☒ No, go to 13.1
- ☒ 13.1. Adjust the position of the H-point. (S10.1)
- ☒ 13.2. Is the head level within $\pm 0.5^\circ$? (S10.1)
- ☐ Yes, record the following, then go to 15.
- ☒ No, go to 13.3
- Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
- Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
- Pelvic angle (20° to 25°) (S10.4.2.2)
- ☒ 13.3 Adjust the pelvic angle. (S10.1)
- ☒ 13.4 Is the head level within $\pm 0.5^\circ$? (S10.1)
- ☐ Yes, record the following, then go to 14
- ☒ No, go to 13.5
- Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
- Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
- Pelvic angle (20° to 25°) (S10.4.2.2)
- ☒ 13.5 Adjust the neck bracket of the dummy the minimum amount necessary from the non-adjusted "0" setting until the head is level within $\pm 0.5^\circ$. (S10.1)
- Record the following, then go to 14
- 0.080 Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
- 0.118 Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
- 23.5 Pelvic angle (20° to 25°) (S10.4.2.2)
- ☒ 14. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
- 10.6 measured distance (10.6 inches) (S10.5)
- ☒ 15. Can the right foot be placed on the accelerator?
- ☒ Yes, go to 15.1 and skip 15.2
- ☐ No, go to 15.2
- ☒ 15.1 To the extent practicable keep the right thigh and the leg in a vertical plane (S10.5) while resting the foot on the undepressed accelerator pedal with the rearmost point of the heel on the floor pan in the plane of the pedal. (S10.6.1.1)

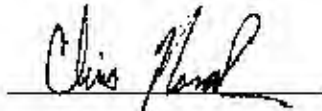
- ☐ 15.2 Initially set the foot perpendicular to the leg and then place it as far forward as possible in the direction of the pedal centerline with the rearmost point of the heel resting on the floor pan. (S10.6.1.1)
- ☐ 15.2.1 Move the adjustable pedal to its most rearward position or until the right foot is flat on the pedal, whichever occurs first. (S10.6.1.1)
- ☒ 16 ☒ N/A – the accelerator pedal is not adjustable
Does the vehicle have a foot rest?
- ☒ Yes, go to 16.1
- ☐ No, go to 16.2
- ☒ 16.1 With the left thigh and leg in a vertical plane, place the foot on the foot rest with the heel resting on the floor pan. (S10.6.1.2)
- ☒ 16.1.1 Is the left foot elevated above the right foot?
- ☐ Yes, go to 16.1.2 and position the foot off the foot rest
- ☒ No, go to 17
- ☐ 16.1.2 Check the ONLY one of the following that applies
- ☐ The foot reaches the toeboard without adjusting the foot or leg. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard, skip 16.1.3 (S10.6.1.2)
- ☐ The foot reaches the toeboard but contacts the brake or clutch pedal and must be rotated to avoid pedal contact. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard. The foot was rotated about the leg to avoid pedal contact, skip 16.1.3 (S10.6.1.2)
- ☐ The foot reaches the toeboard but contacts the brake or clutch pedal and the foot and leg must be rotated to avoid pedal contact. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5) and place the foot on the toeboard. The foot was rotated about the leg and the leg was rotated outboard about the hip the minimum distance necessary to avoid pedal contact, skip 16.1.3 (S10.6.1.2)
- ☐ N/A – the foot does not reach the toeboard, go to 16.1.3
- ☐ 16.1.3 Check the ONLY one of the following that applies
- ☐ The foot did not contact the brake or clutch pedal. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5). Set the foot perpendicular to the leg and place it as far forward as possible with the heel resting on the floor pan. (S10.6.1.2)
- ☐ The foot did contact the brake or clutch pedal and the foot was rotated to avoid contact. To the extent practicable keep the left thigh and the leg in a vertical longitudinal plane (S10.5). Set the foot perpendicular to the leg and place it as far forward as possible with the heel resting on the floor pan and rotate the foot the minimum amount to avoid pedal contact. (S10.6.1.2)
- ☐ The foot did contact the brake or clutch pedal and the foot was rotated about the leg and the leg was rotated outboard about the hip the minimum distance necessary to avoid pedal contact. Set the foot perpendicular to the leg and place it as far forward as possible with the heel resting on the floor pan and rotate the foot about the leg and the thigh and leg outboard about the hip the minimum distance necessary to avoid pedal contact. (S10.6.1.2)
- ☒ 17. Place the right upper arm adjacent to the torso with the centerline as close to a vertical plane as possible. (S10.2.1)
- ☒ 18. Is the driver seat belt used for this test?
- ☐ Yes, continue
- ☒ No, go to 19
- ☐ 18.1 Fasten the seat belt around the dummy.
- ☐ 18.2 Remove all slack from the lap belt portion. (S10.9)
- ☐ 18.3 Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9)

- ☐ 18.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)
_____pound load applied
- ☐ 18.5 Is the belt system equipped with a tension-relieving device?
☐ Yes, continue
☐ No, go to 19
- ☐ 18.6 Introduce the maximum amount of slack into the upper torso belt that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9).
- ☒ 19. Place the left upper arm adjacent to the torso with the centerline as close to a vertical plane as possible. (S10.2.1)
- ☒ 20. Place the right hand with the palm in contact with the steering wheel at the rim's horizontal centerline and with the thumb over the steering wheel. (S10.3.1)
- ☒ 21. Place the left hand with the palm in contact with the steering wheel at the rim's horizontal centerline and with the thumb over the steering wheel. (S10.3.1)
- ☒ 22. Tape the thumb of each hand to the steering wheel by using masking tape with a width of 0.25 inch. The length of the tape shall only be enough to go around the thumb and steering wheel one time.

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:



Date: 6/5/03

APPENDIX F
DUMMY POSITIONING PROCEDURES
FOR PASSENGER TEST DUMMY CONFORMING TO SUBPART E OF PART 572

IMPACT ANGLE:	Zero Degrees		
BELTED DUMMIES (YES/NO):	No		
TEST SPEED:	X 32 to 40 kmph	0 to 48 kmph	0 to 56 kmph
DRIVER DUMMY:	5 TH female	X 50 TH Male	
PASSENGER DUMMY:	5 TH female	X 50 TH Male	

- ☐ 1. The seat is a bench seat for which the adjustments have already been made for the driver and there are no independent adjustments that can be made for the passenger. Go to 7.
- ☒ 2. Position the seat's adjustable lumbar supports so that the lumbar support is in its lowest, retracted or deflated adjustment position. (S8.1.3)
 - ☒ N/A – No lumbar adjustment
- ☒ 3. Position any adjustable parts of the seat that provide additional support so that they are in the lowest or most open adjustment position. (S20.1.8.2)
 - ☒ N/A – No additional support adjustment
- ☒ 4. If the seat cushion adjusts fore and aft, independent of the seat back, set this adjustment to the full rearward position. (S20.1.9.3)
 - ☒ N/A – No independent fore-aft seat cushion adjustment
- ☒ 5. Use the seat markings determined during the completion of Data Sheet 14 to set the mid-fore-aft position, full down height position and the seat cushion angle. (S8.1.2)
- ☒ 6. The seat back angle, if adjustable, is set at the manufacturer's nominal design riding position for a 50th percentile adult male in the manner specified by the manufacturer. (S4.5.4.1 (b) and S8.1.3)
 - ☒ N/A – No seat back angle adjustment

Manufacturer's design seat back angle: 5th Notch Rearward; 1st as One; 1.0° On Headrest Post

Tested seat back angle: 5th Notch Rearward; 1st as One; 0.7° On Headrest Post
- ☒ 7. If adjustable, set the head restraint at the full up and full forward position. Any adjustment of the head restraint shall be used to position it full forward. For example, if it rotates, rotate it such that the head restraint extends as far forward as possible. (S8.1.3)
 - ☒ N/A – No head restraint adjustment
- ☒ 8. Place any adjustable seat belt anchorages at the vehicle manufacturer's nominal design position for a 50th percentile adult male occupant (S8.1.3)
 - ☒ N/A – No adjustable upper seat belt anchorage: (Unbelted Test)

Manufacturer's specified anchorage position:

Tested anchorage position:
- ☒ 9. Place the dummy in the seat such that the midsagittal plane is coincident with the longitudinal seat cushion markings as determined in item 1.18 of Data Sheet 14 and the upper torso rests against the seat back. (S10.4.1.1 & S10.4.1.2)
- ☒ 10. Rest the thighs on the seat cushion. (S10.5)
- ☒ 11. Position the H-point of the dummy within 0.5 inch of the vertical dimension and 0.5 inch of the horizontal dimension of a point 0.25 inch below the H-point determined by using the equipment and procedures specified in SAE J826 (APR 1980). (S10.4.2.1) Then measure the pelvic angle with respect to the horizontal using the pelvic angle gage. Adjust the dummy position until these three measurements are within the specifications. (S10.4.2.1 and S10.4.2.2)

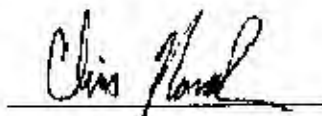
- ☒ 12. 0.158 Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
0.080 Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
23.7 Pelvic angle (20° to 25°) (S10.4.2.2)
- ☒ 12.1. Is the head level within $\pm 0.5^\circ$? (S10.1)
☐ Yes, go to 13
☒ No, go to 12.1
- ☒ 12.2. Adjust the position of the H-point. (S10.1)
☒ 12.2. Is the head level within $\pm 0.5^\circ$? (S10.1)
☐ Yes, record the following, then go to 13.
☒ No, go to 12.3
☐ Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
☐ Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
☐ Pelvic angle (20° to 25°) (S10.4.2.2)
- ☒ 12.3. Adjust the pelvic angle. (S10.1)
- ☒ 12.4. Is the head level within $\pm 0.5^\circ$? (S10.1)
☐ Yes, record the following, then go to 13
☒ No, go to 12.5
☐ Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
☐ Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
☐ Pelvic angle (20° to 25°) (S10.4.2.2)
- ☒ 12.5. Adjust the neck bracket of the dummy the minimum amount necessary from the non-adjusted "0" setting until the head is level within $\pm 0.5^\circ$. (S10.1)
Record the following, then go to 14
0.118 Horizontal inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
0.040 Vertical inches from the point 0.25 below the determined H-point (0.5 inch max.) (S10.4.2.1)
24.6 Pelvic angle (20° to 25°) (S10.4.2.2)
- ☒ 13. Set the distance between the outboard knee clevis flange surfaces at 10.6 inches.
10.6 measured distance (10.6 inches) (S10.5)
- ☒ 14. Check the only one of the following that applies:
☒ To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, place the feet on the toeboard with the heels resting on the floor pan as close as possible to the intersection of the floor pan and toeboard.
☐ The feet cannot be placed flat on the toeboard. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heel resting on the floor pan.
☐ The vehicle has a wheelhouse projection. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heels resting on the floor pan. Do not set the feet on the wheelhouse projection.
☐ The vehicle has a wheelhouse projection and the feet cannot be placed on the toeboard. To the extent practicable keep the left thigh and leg in a vertical plane and the right thigh and leg in a vertical plane, set the feet perpendicular to the legs and place them as far forward as possible with the heel resting on the floor pan. Do not set the feet on the wheelhouse projection.
- ☒ 15. Place the left upper arm in contact with the seat back and side of the torso. (S10.2.2)

- ☒ 16. Is the passenger seat belt used for this test?
☐ Yes, continue
☒ No, go to 17
- ☐ 16.1 Fasten the seat belt around the dummy.
- ☐ 16.2 Remove all slack from the lap belt portion. (S10.9)
- ☐ 16.3 Pull the upper torso webbing out of the retractor and allow it to retract; repeat this four times. (S10.9).
- ☐ 16.4 Apply a 2 to 4 pound tension load to the lap belt. (S10.9)
_____pound load applied
- ☐ 16.5 Is the belt system equipped with a tension relieving device?
☐ Yes, continue
☐ No, go to 17
- ☐ 16.6 Introduce the maximum amount of slack into the upper torso belt that is recommended by the vehicle manufacturer in the vehicle owner's manual. (S10.9). Go to 17.
- ☒ 17. Place the right upper arm in contact with the seat back and side of the torso. (S10.2.2)
- ☒ 18. Place the left hand palm in contact with the outside of the left thigh and the little finger in contact with the seat cushion. (S10.3.2)
- ☒ 19. Place the right hand palm in contact with the outside of the right thigh and the little finger in contact with the seat cushion. (S10.3.2)

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:



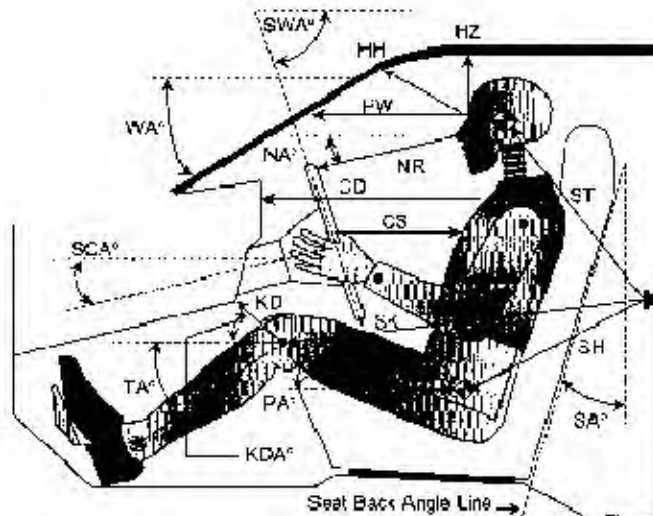
Date: 6/5/03

DATA SHEET 35 **DUMMY MEASUREMENTS**

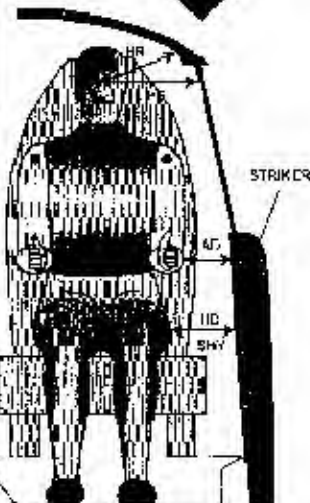
Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Chris Novak

NHTSA No.: C35107
 Test Date: 6/5/03

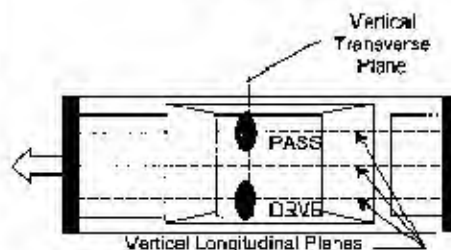
DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS



AD Arm to Door
 HD H-Point to Door
 HR Head to Side Header
 HS Head to Side Window
 KK Knee to Knee
 SHY Striker to H-Point
 (Y Axis)



CD Chest to Dash
 CS Chest to Steering Wheel Hub
 HH Head to Header
 HW Head to Windshield
 HZ Head to Roof
 KDA Knee to Dash Angle
 KDL Left Knee to Dash
 KDR Right Knee to Dash
 NA Nose to Rim Angle
 NR Nose to Rim
 PA Pelvic Angle
 RA Rim to Abdomen
 SA Seat Back Angle
 SCA Steering Column Angle
 SH Striker to H-Point
 SK Striker to Knee
 ST Striker to Head
 SWA Steering Wheel Angle
 TA Tibial Angle
 WA Windshield Angle



DATA SHEET 35
DUMMY MEASUREMENTS

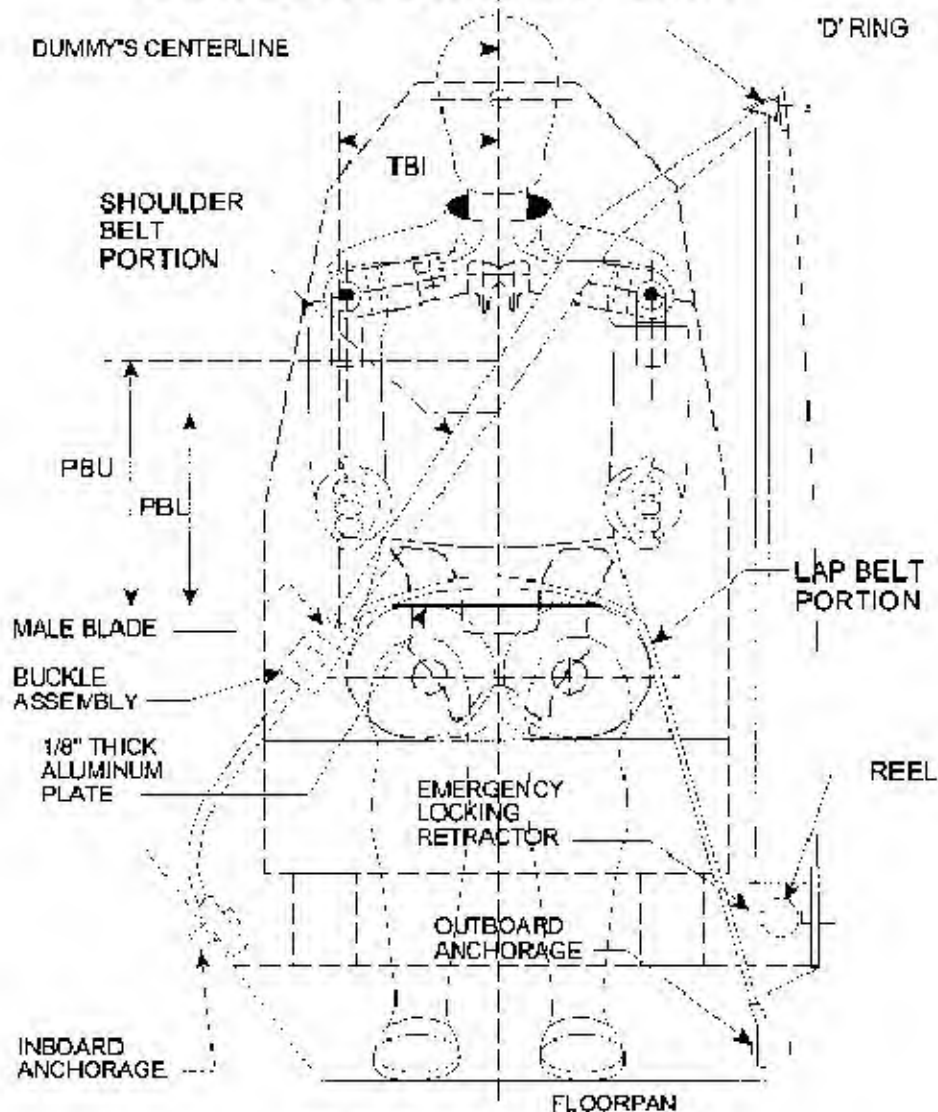
Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Chris Novak

NHTSA No.: C35107
Test Date: 6/5/03

TEST DUMMY POSITION MEASUREMENTS

Code	Measurement Description	Driver SN 312		Passenger SN 340	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA	Windshield Angle		28.1		
SWA	Steering Wheel Angle		63.0		
SCA	Steering Column Angle		27.0		
SA	Seat Back Angle (On Headrest Post)		0.9		0.7
HZ	Head to Roof (Z)	189		174	
HH	Head to Header	304		293	
HW	Head to Windshield	602		574	
HR	Head to Side Header (Y)	187		191	
NR	Nose to Rim	416	16.4		
CD	Chest to Dash	512		510	
CS	Chest to Steering Hub	326			
RA	Rim to Abdomen	189			
KDL	Left Knee to Dash	131	19.9	110	
KDR	Right Knee to Dash	120		132	28.8
PA	Pelvic Angle		23.5		24.6
TA	Tibia Angle		51.7		43.8
KK	Knee to Knee (Y)	333		243	
SK	Striker to Knee	578	96.2	606	100.9
ST	Striker to Head	434	11.5	443	12.8
SH	Striker to H-Point	304	130.5	297	130.2
SHY	Striker to H-Point (Y)	245		247	
HS	Head to Side Window	303		308	
HD	H-Point to Door (Y)	150		151	
AD	Arm to Door (Y)	94		111	

SEAT BELT POSITIONING DATA



FRONT VIEW OF DUMMY

Unbelted Test: TBI, PBU, and PBL are not applicable.

DATA SHEET 36

CRASH TEST

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Chris Novak

NHTSA No.: C35107
 Test Date: 5/5/03

IMPACT ANGLE:	Zero Degrees		
BELTED DUMMIES (YES/NO):	No		
TEST SPEED:	X 32 to 40 kmph	0 to 48 kmph	0 to 56 kmph
DRIVER DUMMY:	5 TH female	X 50 th Male	
PASSENGER DUMMY:	5 TH female	X 50 th Male	

- ☒ 1. Vehicle underbody painted
- ☒ 2. The speed measuring devices are in place and functioning.
- ☒ 3. The speed measuring devices are 1.3 m from the barrier (spec. 1.5m) and 30 cm from the barrier (spec. is 30 cm)
- ☒ 4. Convertible top is in the closed position.
☒ N/A, not a convertible
- ☒ 5. Instrumentation and wires are placed so the motion of the dummies during impact is not affected.
- ☒ 6. Tires inflated to pressure on tire placard or if it does not have a tire placard because it is not a passenger car, then inflated to the tire pressure specified in the owner information.

210 kpa front left tire 210 kpa specified on tire placard or in owner information
210 kpa front right tire 210 kpa specified on tire placard or in owner information
210 kpa rear left tire 210 kpa specified on tire placard or in owner information
210 kpa rear right tire 210 kpa specified on tire placard or in owner information

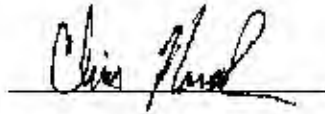
- ☒ 7. Time zero markers and switches in place.
- ☒ 8. Pre test zero and shunt calibration adjustments performed and recorded
- ☒ 9. Dummy temperature meets requirements of section 12.2 of the test procedure.
- ☒ 10. Vehicle hood closed and latched
- ☒ 11. Transmission placed in neutral
- ☒ 12. Parking brake off
- ☒ 13. Ignition in the ON position
- ☒ 14. Doors closed and latched but not locked
- ☒ 15. Posttest zero and shunt calibration checks performed and recorded
- ☒ 16. Actual test speed 39.3 kmph
- ☒ 17. Vehicle rebound from the barrier 301 cm
- ☒ 18. Describe whether the doors open after the test and what method is used to open the doors.
☒ Left Front Door: Door remained closed and latched; Door opened without tools
☒ Right Front Door: Door remained closed and latched; Door opened without tools
☒ Left Rear Door: Door remained closed and latched; Door opened without tools
☒ Right Rear Door: Door remained closed and latched; Door opened without tools
- ☒ 19. Describe the contact points of the dummy with the interior of the vehicle.

- ☒ Driver Dummy: Head to Air Bag and Headrest; Chest and Abdomen to Air Bag;
Knees to Knee Bolster
- ☒ Passenger Dummy: Head to Air Bag and Headrest; Chest and Abdomen to Air Bag;
Knees to Glove Box

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:



Date: 6/5/03

DATA SHEET NO. 38

ACCIDENT INVESTIGATION DIVISION DATA

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Chris Novak

NHTSA No.: C35107
 Test Date: 6/5/03

IMPACT ANGLE:	Zero Degrees		
BELTED DUMMIES (YES/NO):	No.		
TEST SPEED:	<input checked="" type="checkbox"/> 32 to 40 kmph	<input type="checkbox"/> 0 to 48 kmph	<input type="checkbox"/> 0 to 56 kmph
DRIVER DUMMY:	5 TH female	<input checked="" type="checkbox"/> 50 th Male	
PASSENGER DUMMY:	5 TH female	<input checked="" type="checkbox"/> 50 th Male	

Vehicle Year/Make/Model/Body Style:	2003 Toyota Corolla 4 Door Sedan
VIN:	1NXBR32E33Z170225
Wheelbase:	2600 mm
Build Date:	03/03
Vehicle Size Category:	Compact
Test Weight:	1329.1 kg
Front Overhang:	906 mm
Overall Width:	1698 mm

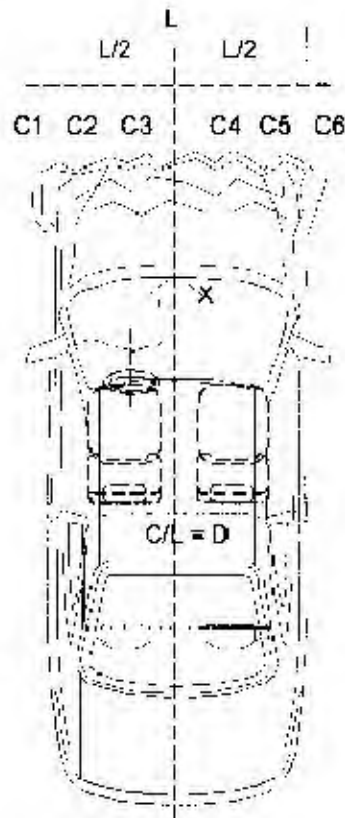
Accelerometer Data	
Location:	As per measurements on Data Sheet 31
Linearity:	>99.9%

Integration Algorithm:	Trapezoidal
Vehicle Impact Speed:	39.3 kmph
Time of Separation:	92 msec
Velocity Change:	44.8 kmph

CRUSH PROFILE

Collision Deformation Classification:	12FDEW6
Midpoint of Damage:	Vehicle Longitudinal Centerline
Damage Region Length (mm):	1698
Impact Mode:	Frontal Barrier

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
C1	Crush zone 1 at left side	mm	4380	4115	245
C2	Crush zone 2 at left side	mm	4458	4130	328
C3	Crush zone 3 at left side	mm	4500	4120	380
C4	Crush zone 4 at right side	mm	4500	4143	357
C5	Crush zone 5 at right side	mm	4458	4152	306
C6	Crush zone 6 at right side	mm	4380	4121	239



DATA SHEET 39
WINDSHIELD MOUNTING (FMVSS 212)

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Chris Novak

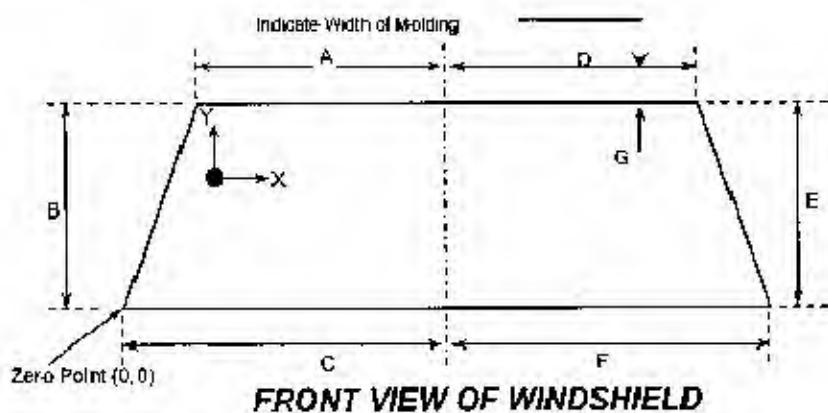
NHTSA No.: C35107
 Test Date: 6/5/03

IMPACT ANGLE:	Zero Degrees		
BELTED DUMMIES (YES/NO):	No		
TEST SPEED:	<input checked="" type="checkbox"/> 32 to 40 kmph	<input type="checkbox"/> 0 to 48 kmph	<input type="checkbox"/> 0 to 56 kmph
DRIVER DUMMY:	5 TH female	<input checked="" type="checkbox"/> 50 th Male	
PASSENGER DUMMY:	5 TH female	<input checked="" type="checkbox"/> 50 th Male	

- ☒ 1. Pre-Crash
- ☒ 1.1 Describe from visual inspection how the windshield is mounted and describe any trim material.
- Retained with glue
Rubber trim
- ☒ 1.2 Mark the longitudinal centerline of the windshield
- ☒ 1.3 Measure pre-crash A, B, and C for the left side and record in the chart below.
- ☒ 1.4 Measure pre-crash C, D, and E for the right side and record in the chart below.
- ☒ 1.5 Measure from the edge of the retainer or molding to the edge of the windshield.
- ☒ Dimension G (mm): 10
- ☒ 2. Post Crash
- ☒ 2.1 Can a single thickness of copier type paper (as small a piece as necessary) slide between the windshield and the vehicle body?
- ☒ No – Pass. Skip to the table of measurements, complete it by repeating the pre-crash measurements in the post crash column, and calculate the retention percentage, which will be 100%.
- ☐ Yes, go to 2.2
- ☐ 2.2 Visibly mark the beginning and end of the portions of the periphery where the paper slides between the windshield and the vehicle body.
- ☐ 2.3 Measure and record post-crash A, B, C, D, E, and F such that the measurements do not include any of the parts of the windshield where the paper slides between the windshield and the vehicle body.
- ☐ 2.4 Calculate and record the percent retention for the right and left side of the windshield.
- ☐ 2.5 Is total right side percent retention less than 75%?
- ☐ Yes, Fail
- ☐ No, Pass
- ☐ 3. Is total left side percent retention less than 75%?
- ☐ Yes, Fail
- ☐ No, Pass

	Dimension	Pre-Crash (mm)	Post-Crash (mm)	Percent Retention (Post-Test + Pre-Crash)
Left Side	A	1070	1070	100%
	B	830	830	100%
	C	1390	1390	100%
	Total	2060	2060	100%
Right Side	D	1070	1070	100%
	E	830	830	100%
	F	1390	1390	100%
	Total	2060	2060	100%

Indicate area of mounting failure: NONE



REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:

Chris Hand

Date: 6/5/03

DATA SHEET 40

WINDSHIELD ZONE INTRUSION (FMVSS 219)

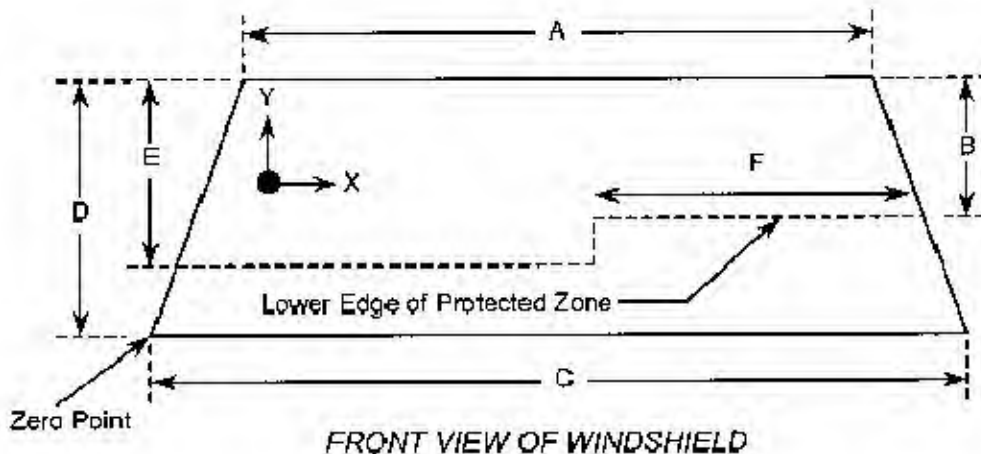
Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance
 Test Technician: Chris Novak

NHTSA No.: C35107
 Test Date: 6/5/03

IMPACT ANGLE:	Zero Degrees		
BELTED DUMMIES (YES/NO):	No		
TEST SPEED:	X 32 to 40 kmph	0 to 48 kmph	0 to 56 kmph
DRIVER DUMMY:	5 TH female	X 50 th Male	
PASSENGER DUMMY:	5 TH female	X 50 th Male	

- ☒ 1. Place a 165 mm diameter rigid sphere, with a mass of 6.8 kg on the instrument panel so that it is simultaneously touching the instrument panel and the windshield. (571.219 S6.1(a))
- ☒ 2. Roll the sphere from one side of the windshield to the other while marking on the windshield where the sphere contacts the windshield. (571.219 S6.1(b))
- ☒ 3. From the outermost contactable points on the windshield draw a horizontal line to the edges of the windshield. (571.219 S6.1(b))
- ☒ 4. Draw a line on the inner surface of the windshield that is 13 mm below the line determined in items 2 and 3
- ☒ 5. After the crash test, record any points where a part of the exterior of the vehicle has marked, penetrated, or broken the windshield.

Provide all dimensions necessary to reproduce the protected area.



Item	Units	Value
A	mm	1070
B	mm	495
C	mm	1390
D	mm	830
E	mm	500
F	mm	508

AREA OF PROTECTED ZONE FAILURES: NONE

- B. Provide coordinates of the area that the protected zone was penetrated more than 0.25 inches by a vehicle component other than one which is normally in contact with the windshield.

X	Y
	

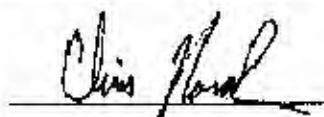
- C. Provide coordinates of the area beneath the protected zone template that the inner surface of the windshield was penetrated by a vehicle component.

X	Y
	

REMARKS: NONE

I certify that I have read and performed each instruction.

Signature:



Date: 6/5/03

DATA SHEET 41
FUEL SYSTEM INTEGRITY (FMVSS 301)

Test Vehicle: 2003 Toyota Corolla
Test Program: FMVSS 208 Compliance
Test Technician: Chris Novak

NHTSA No.: C35107
Test Date: 6/5/03

TYPE OF IMPACT:	UNBELTED 40 KMPH FLAT FRONTAL BARRIER
TIME OF IMPACT:	12:28 PM

Stoddard Solvent Spillage Measurements

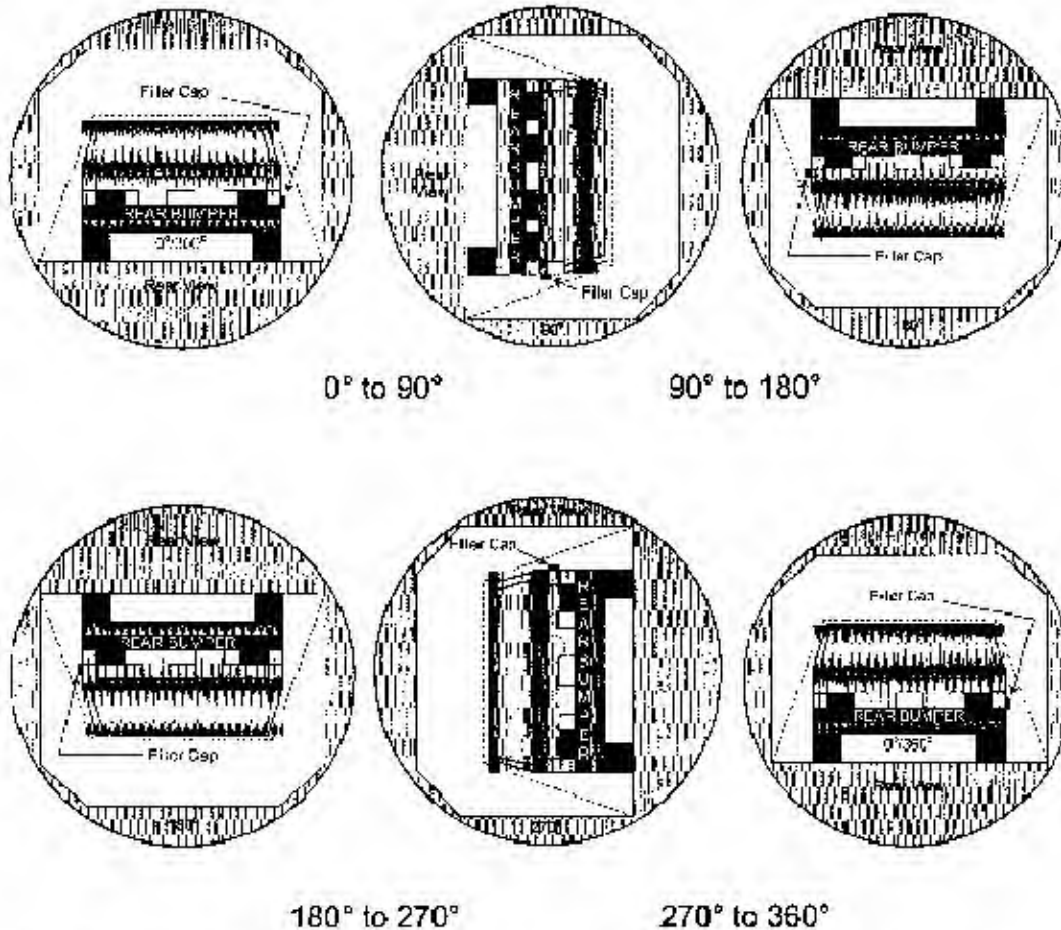
- A. From impact until vehicle motion ceases: 0.0 grams
(Maximum Allowable = 28 grams)
- B. For the 5 minute period after motion ceases: 0.0 grams
(Maximum Allowable = 142 grams)
- C. For the following 25 minutes: 0.0 grams
(Maximum Allowable = 28 grams/minute)
- D. Spillage : NONE

REMARKS: NO SPILLAGE

DATA SHEET NO. 41
FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle: 2003 Toyota Corolla
 Test Program: FMVSS 208 Compliance

NHTSA No.: C35107
 Test Date: 8/5/03



1. The specified fixture rollover rate for each 90° of rotation is 60 to 180 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage locations:


Test Phase	Rotation Time (sec.)	Hold Time (sec.)	Spillage (grams)
0° to 90°	167	300	0.0
90° to 180°	154	300	0.0
180° to 270°	137	300	0.0
270° to 360°	159	300	0.0

APPENDIX A
PHOTOGRAPHS

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MFG BY: NEW UNITED MOTOR MANUFACTURING
 INC 03/03
 CAR 32551B CAR FR 18851B RR 17201B
 THIS VEHICLE CONFORMS TO ALL APPLICABLE
 FEDERAL MOTOR VEHICLE SAFETY BUMPER AND
 FEDERAL PREVENTION STANDARDS IN EFFECT ON
 THE DATE OF MANUFACTURE SHOWN ABOVE
 VIN: 32551B321T0225 PASS CAR

 VIN: 32551B321T0225
 VIN: 32551B321T0225
 VIN: 32551B321T0225

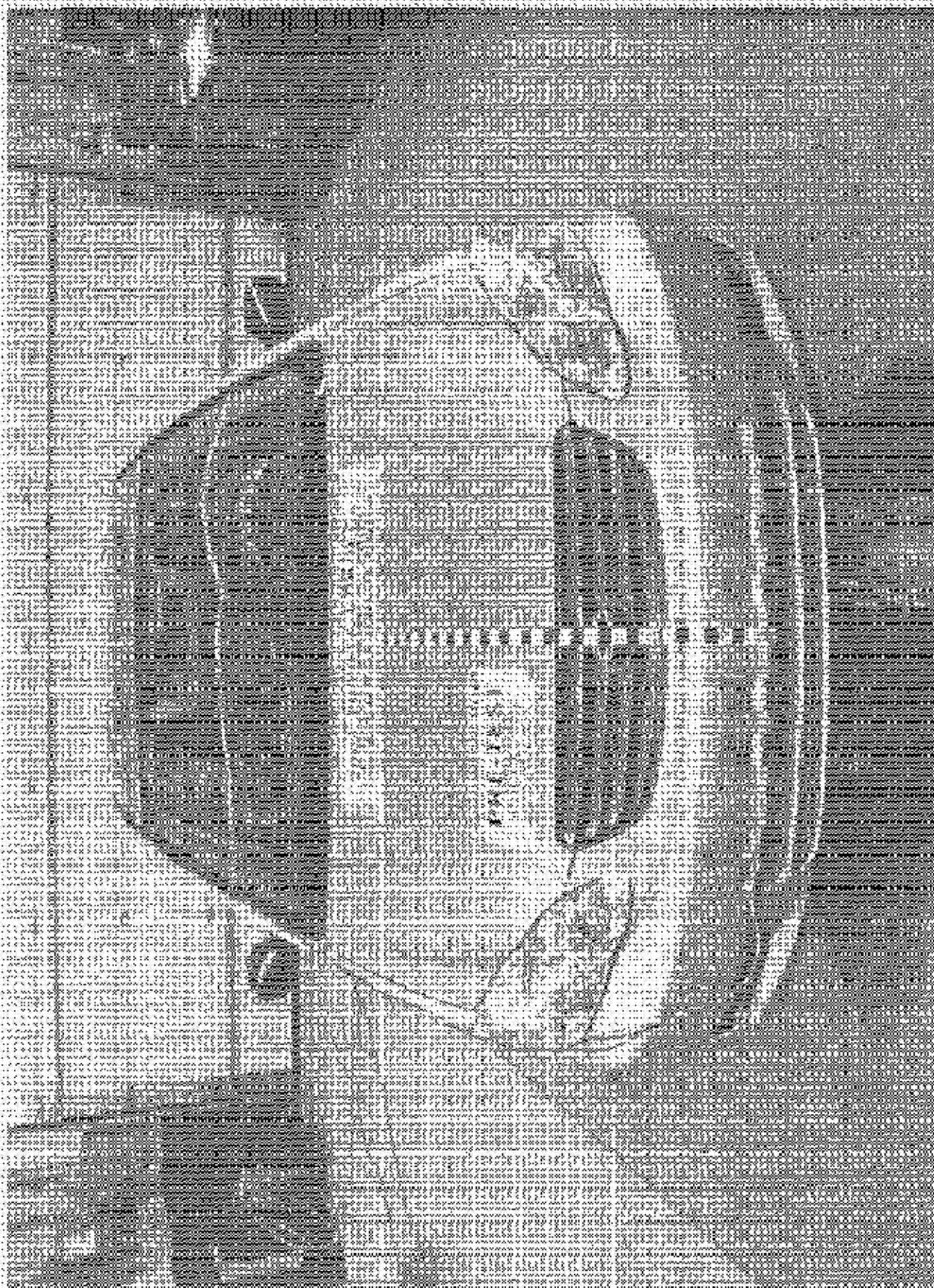
BA3191688

Vehicle Certification Label

VEHICLE CAPACITY WEIGHT: 8601bs (390kg)
 DESIGNATED SEATING CAPACITY: TOTAL 5 (FRONT 2, REAR 3)
 RECOMMENDED COLD TIRE INFLATION PRESSURE: PSI (KPa)
 UP TO VEHICLE CAPACITY WEIGHT FRONT 30 (210), REAR 30 (210)
 RECOMMENDED TIRE SIZE: P185/65R15 86S, P195/65R15 89S
 COMPACT SPARE TIRE
 RECOMMENDED COLD TIRE INFLATION PRESSURE: 60psi (420kPa)
 RECOMMENDED TIRE SIZE: T125/70R16 96M
 SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
 CHARGE MAXIMALE DU VEHICULE: 860LIVRES (390kg)
 NOMBRE DESIGNÉ DE PLACES ASSISSES: TOTAL 5
 (AVANT 2, ARRIERE 3)
 PRESSION RECOMMANDEE DE GONFLAGE A FROID DES PNEUS
 AU POIDS MAXIMAL DU VEHICULE CHARGE: LB/PO? (KPa)
 AVANT 30 (210), ARRIERE 30 (210)
 DIMENSION RECOMMANDEE DES PNEUS: P185/65R15 86S, P195/65R15 89S
 PNEU DE RECHANGE COMPACT
 DIMENSION RECOMMANDEE DU PNEU: T125/70R16 96M
 PRESSION RECOMMANDEE DE GONFLAGE A FROID: 60LB/PO? (420KPa)
 POUR DE PLUS AMPLES DETAILS, VOIR LE MANUEL DU PROPRIETAIRE

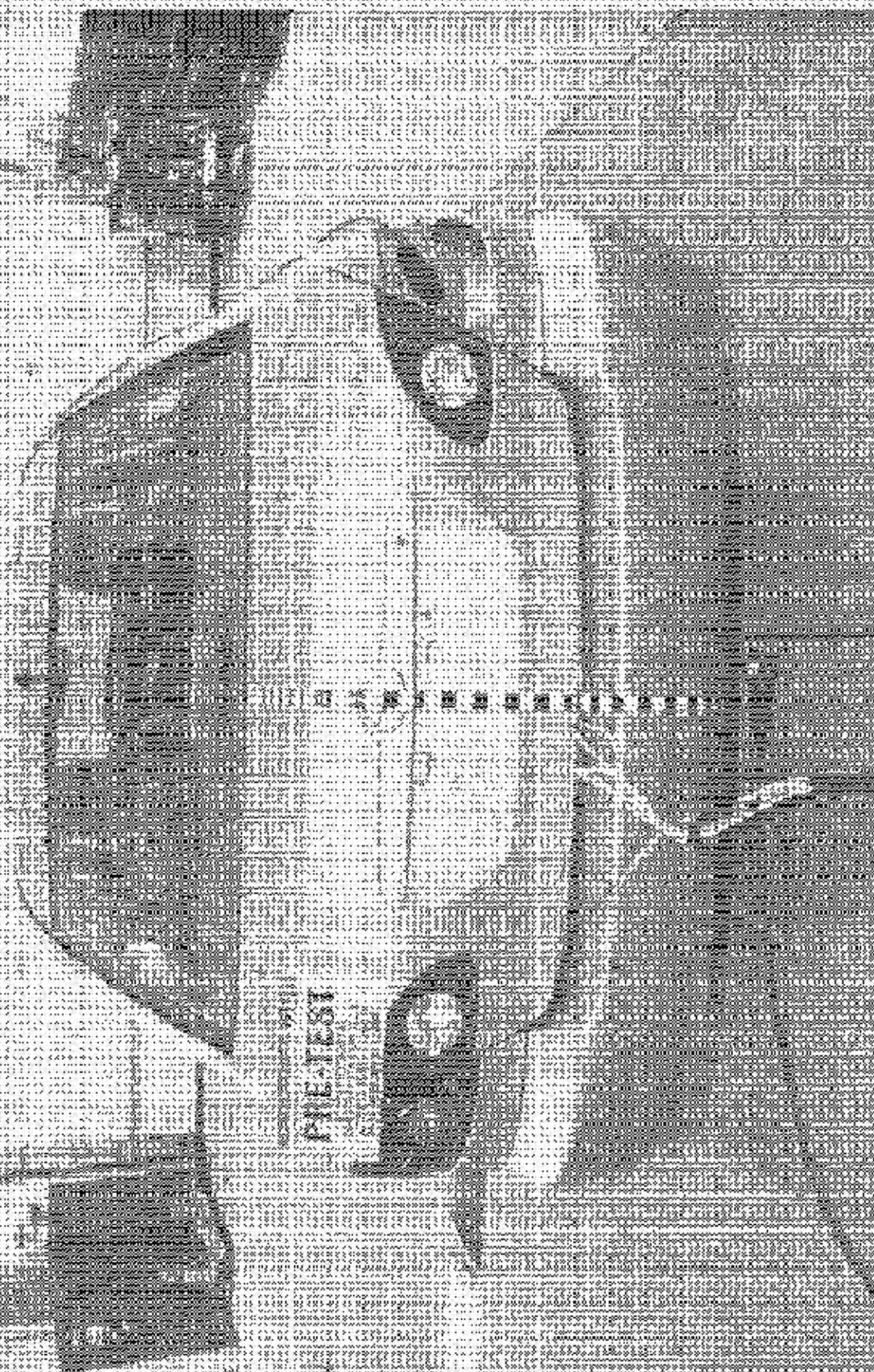
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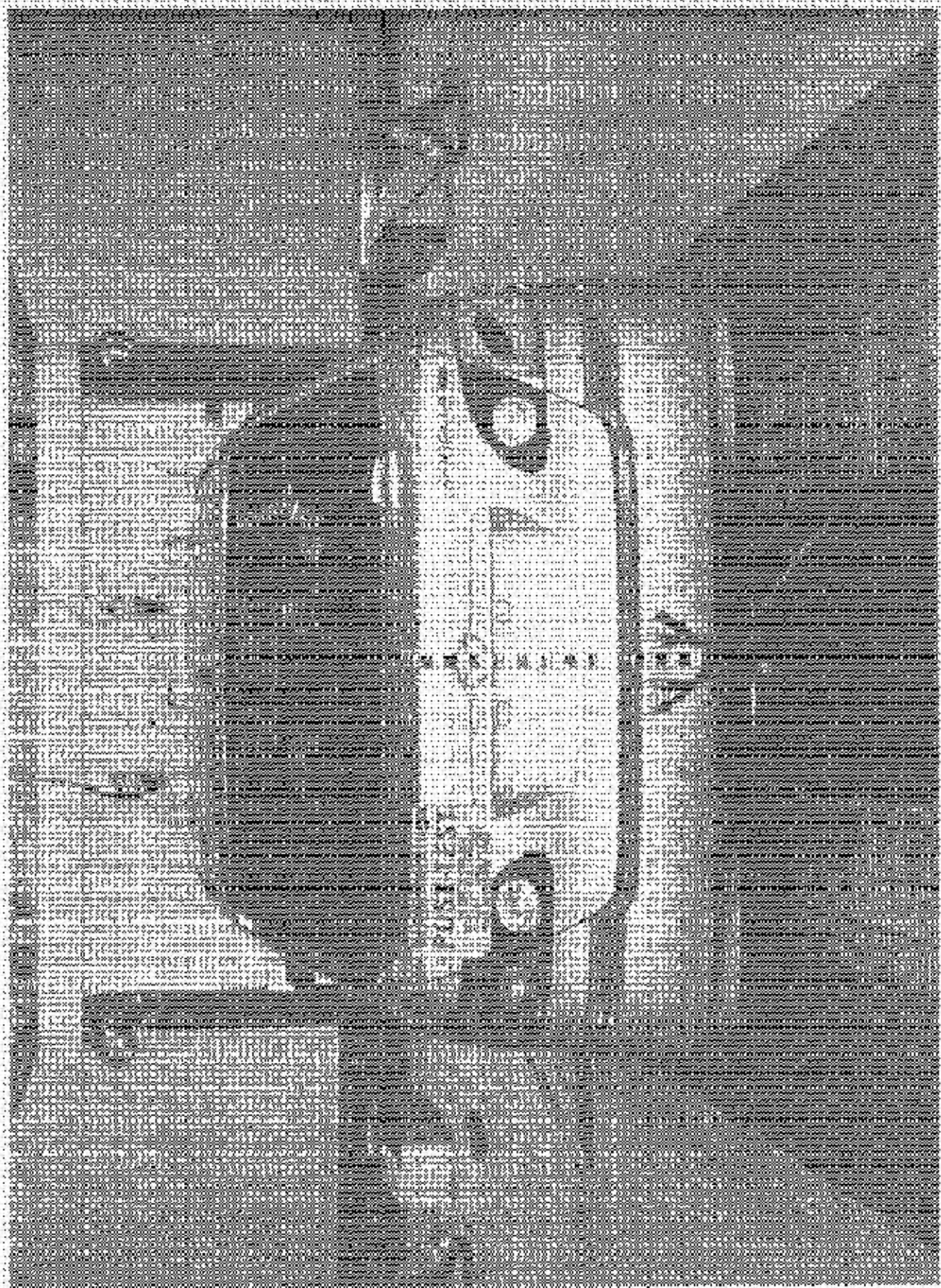


PHOTOGRAPH BY JAMES M. HARRIS

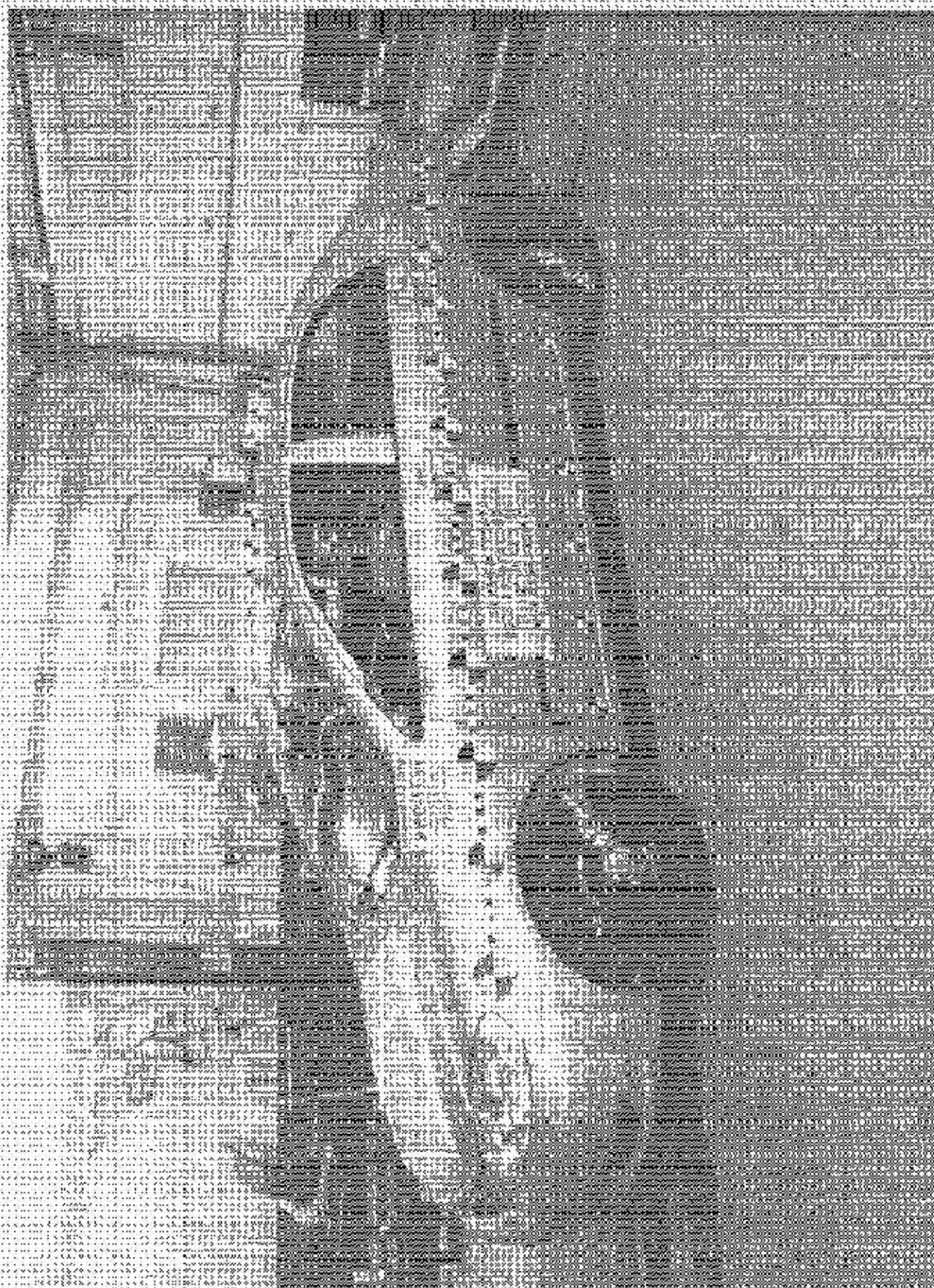
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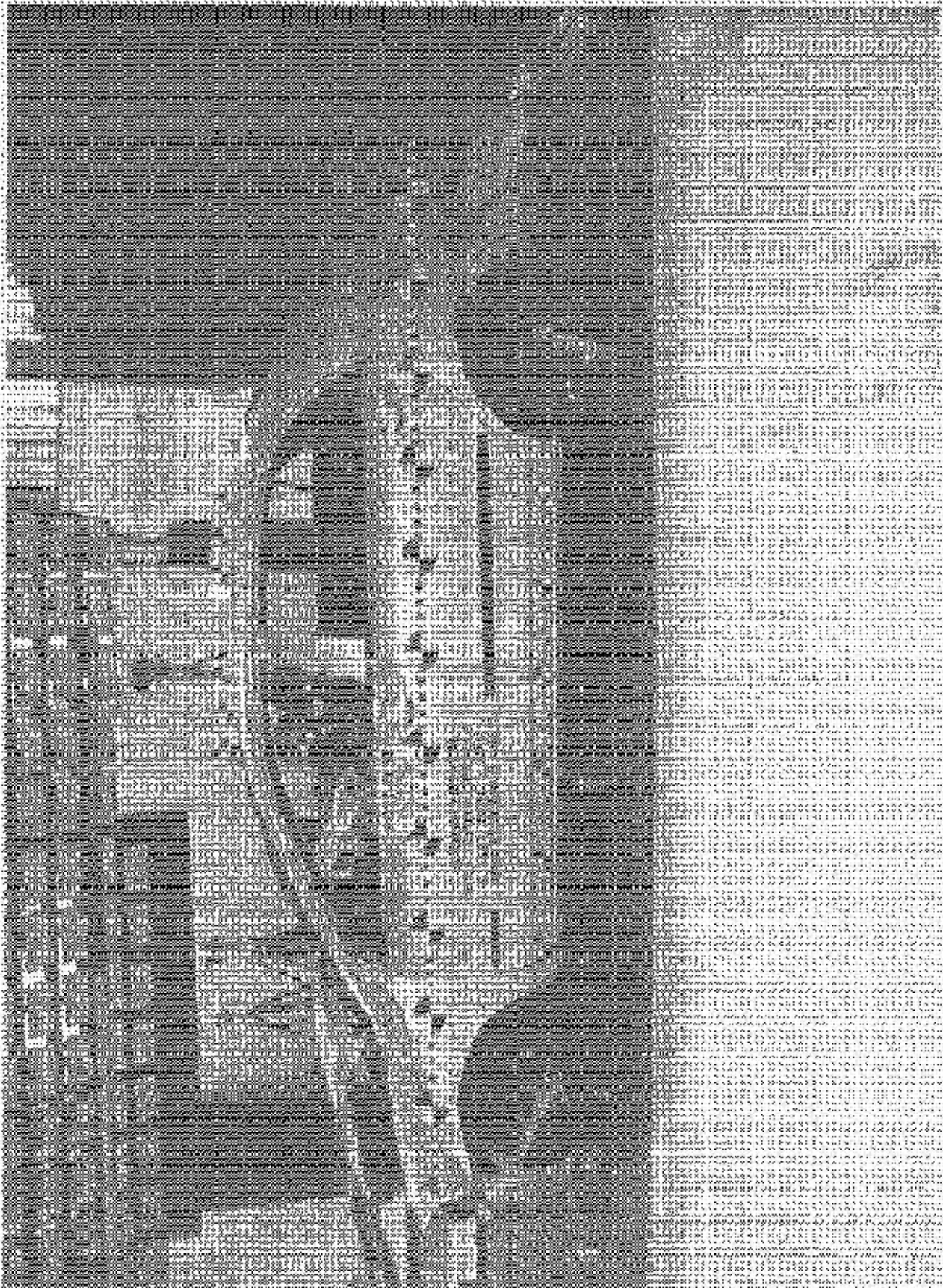


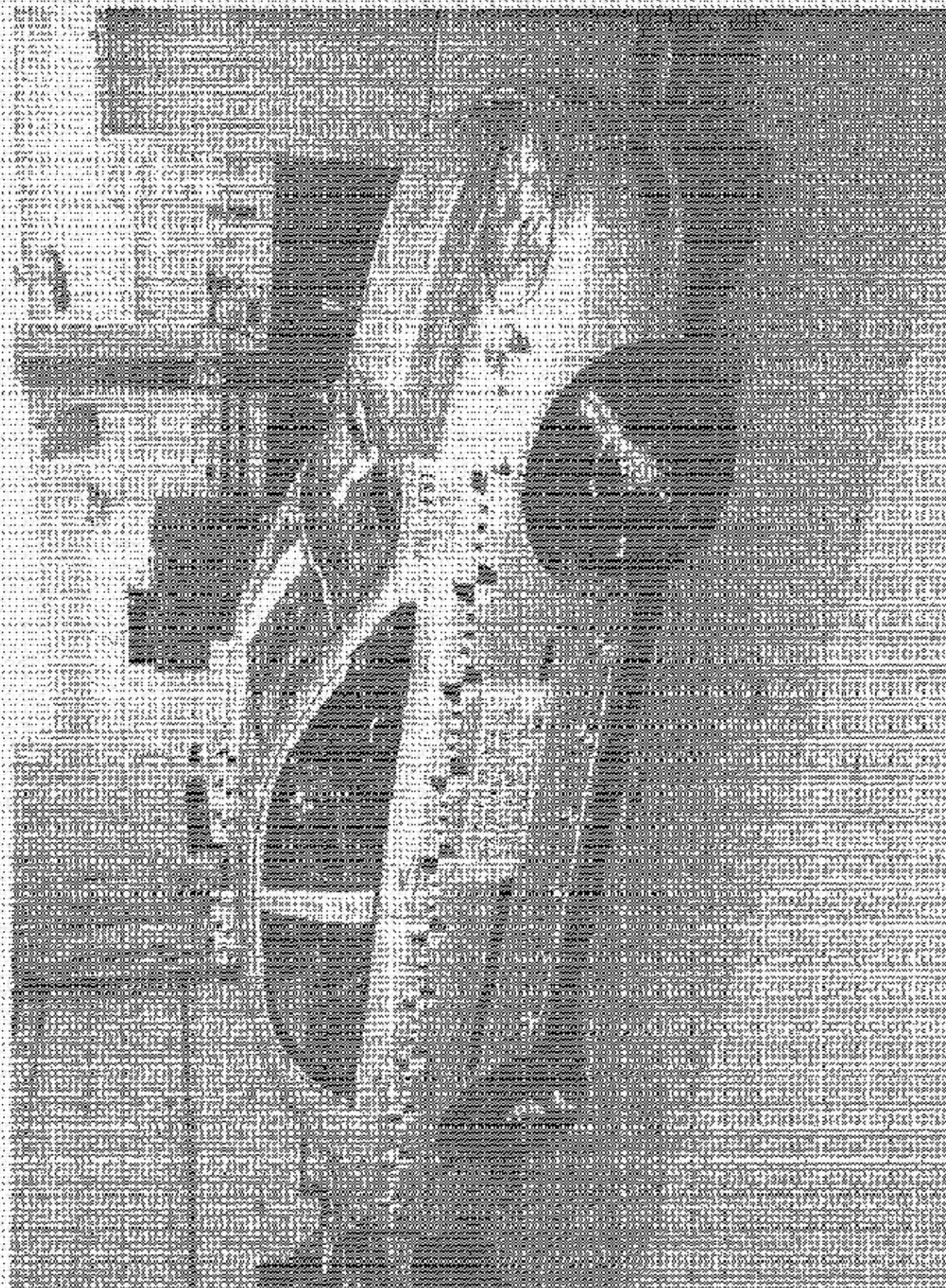
How the new law will affect you



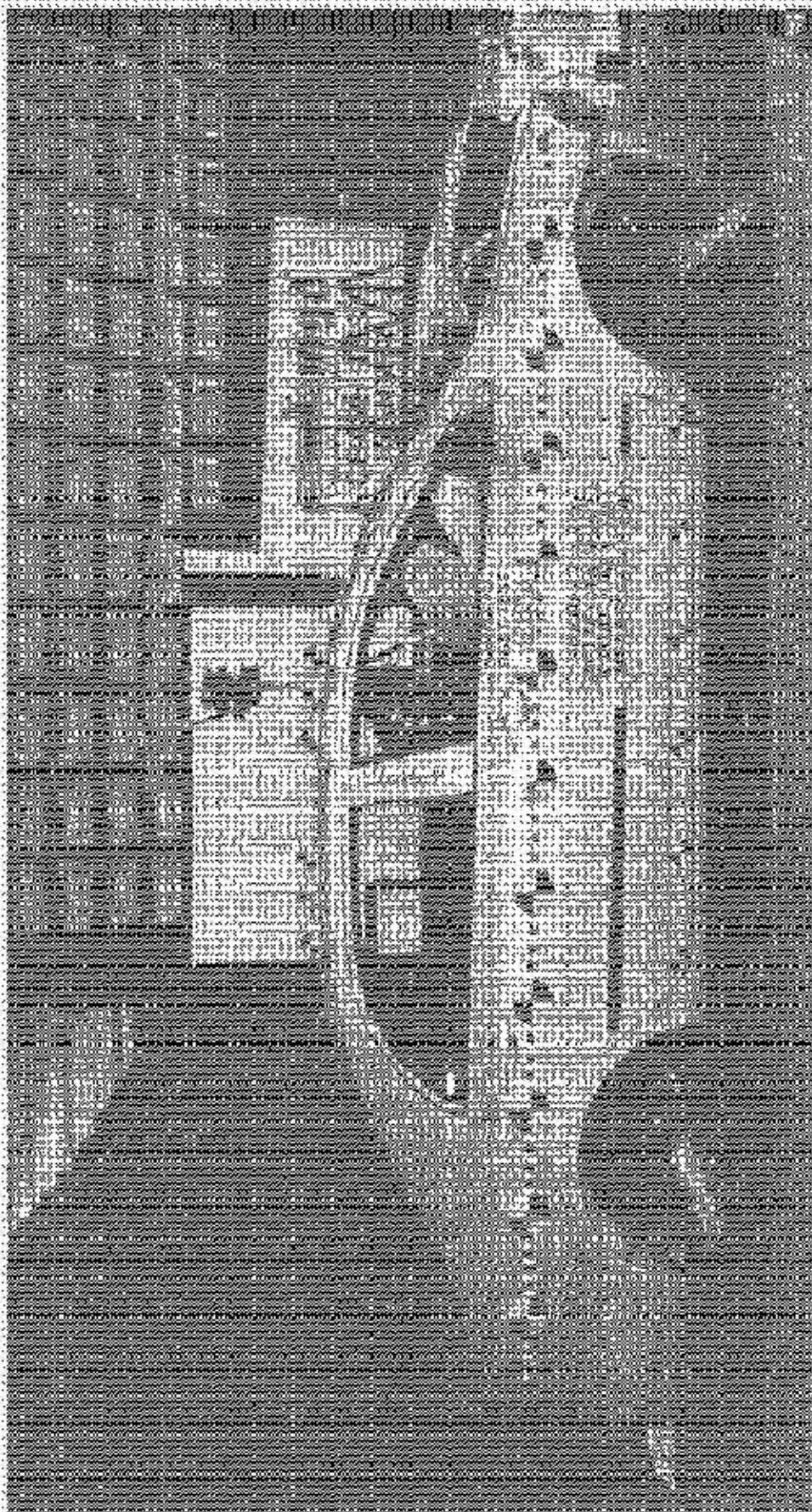
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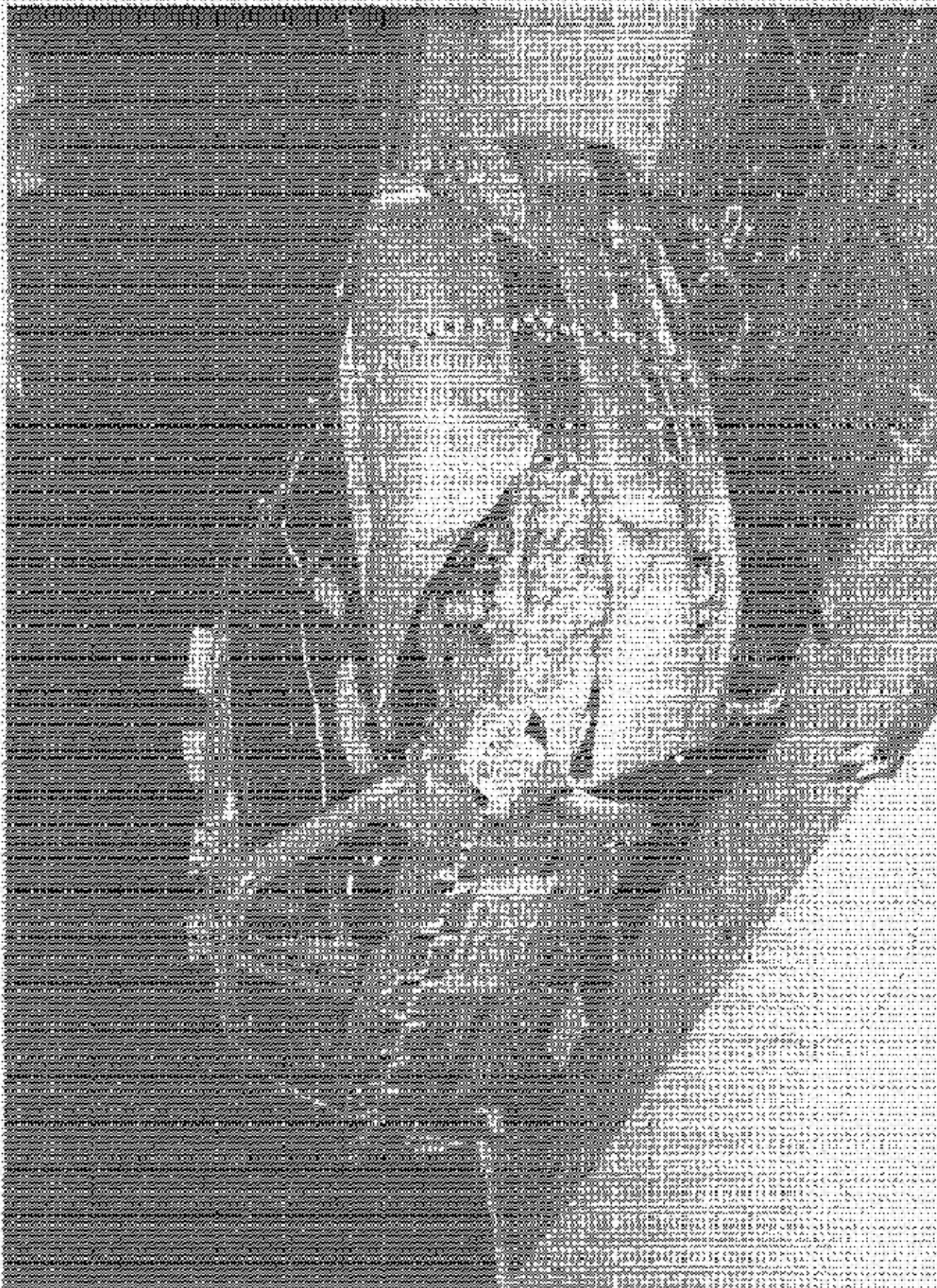


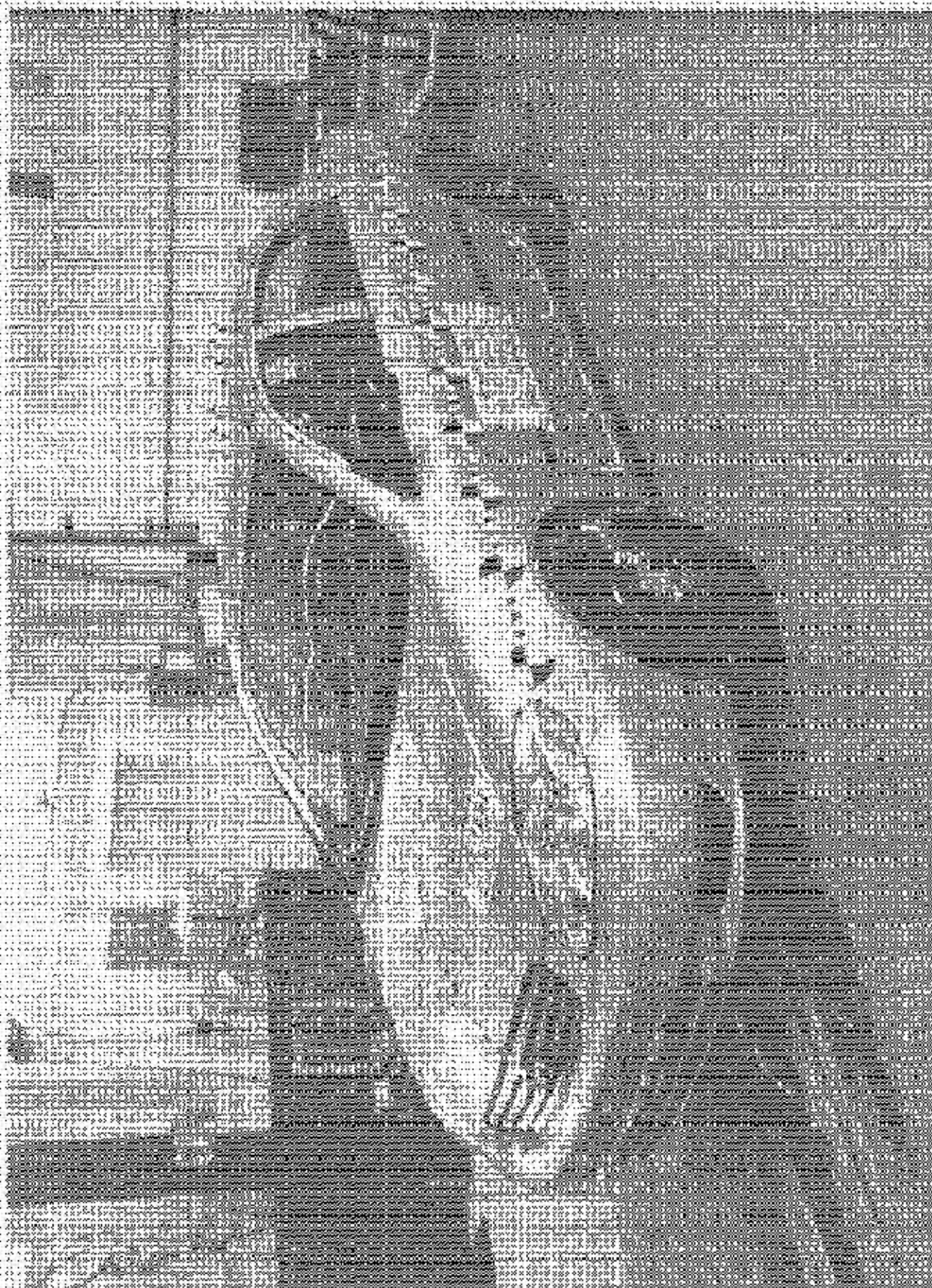


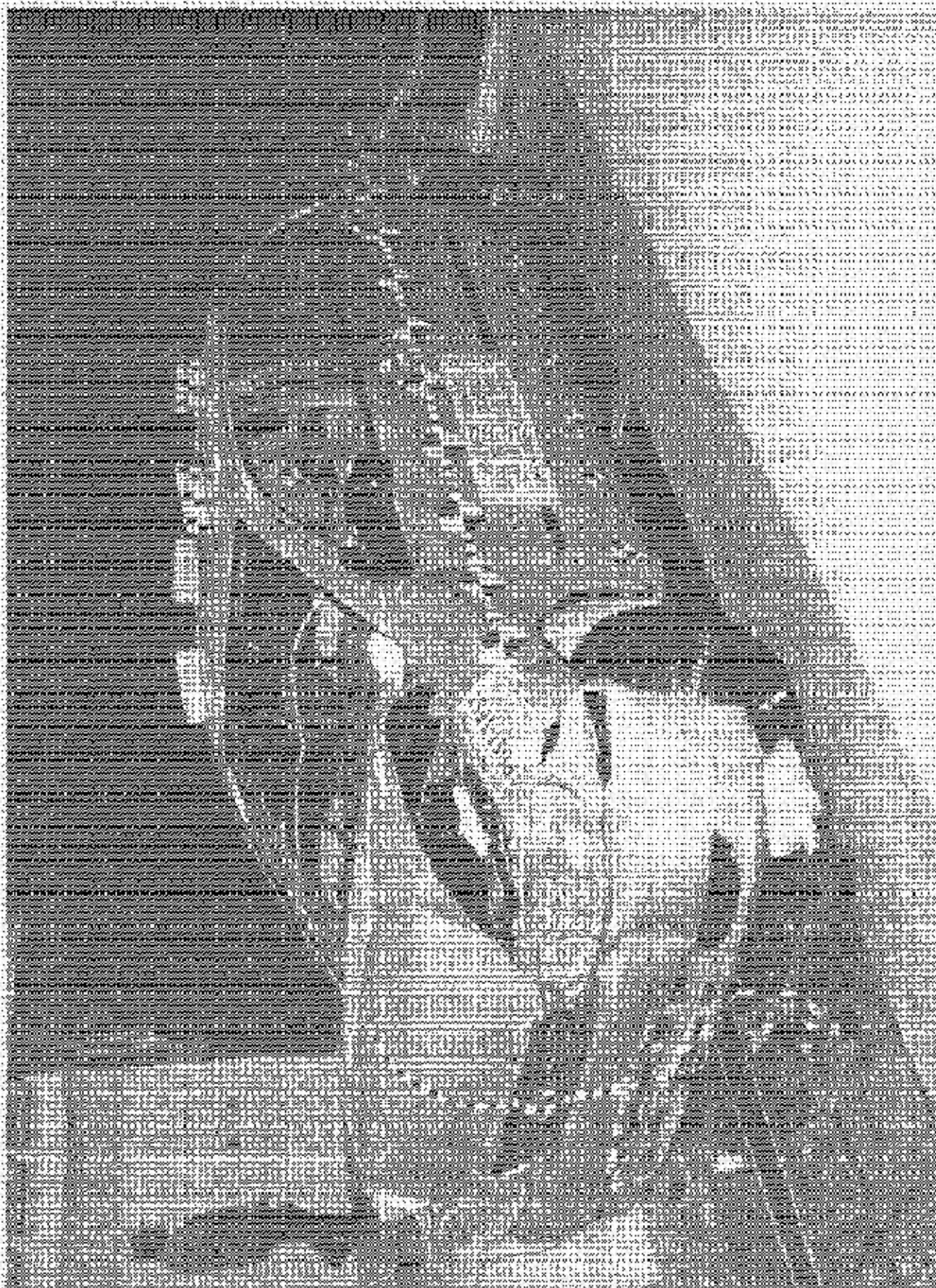


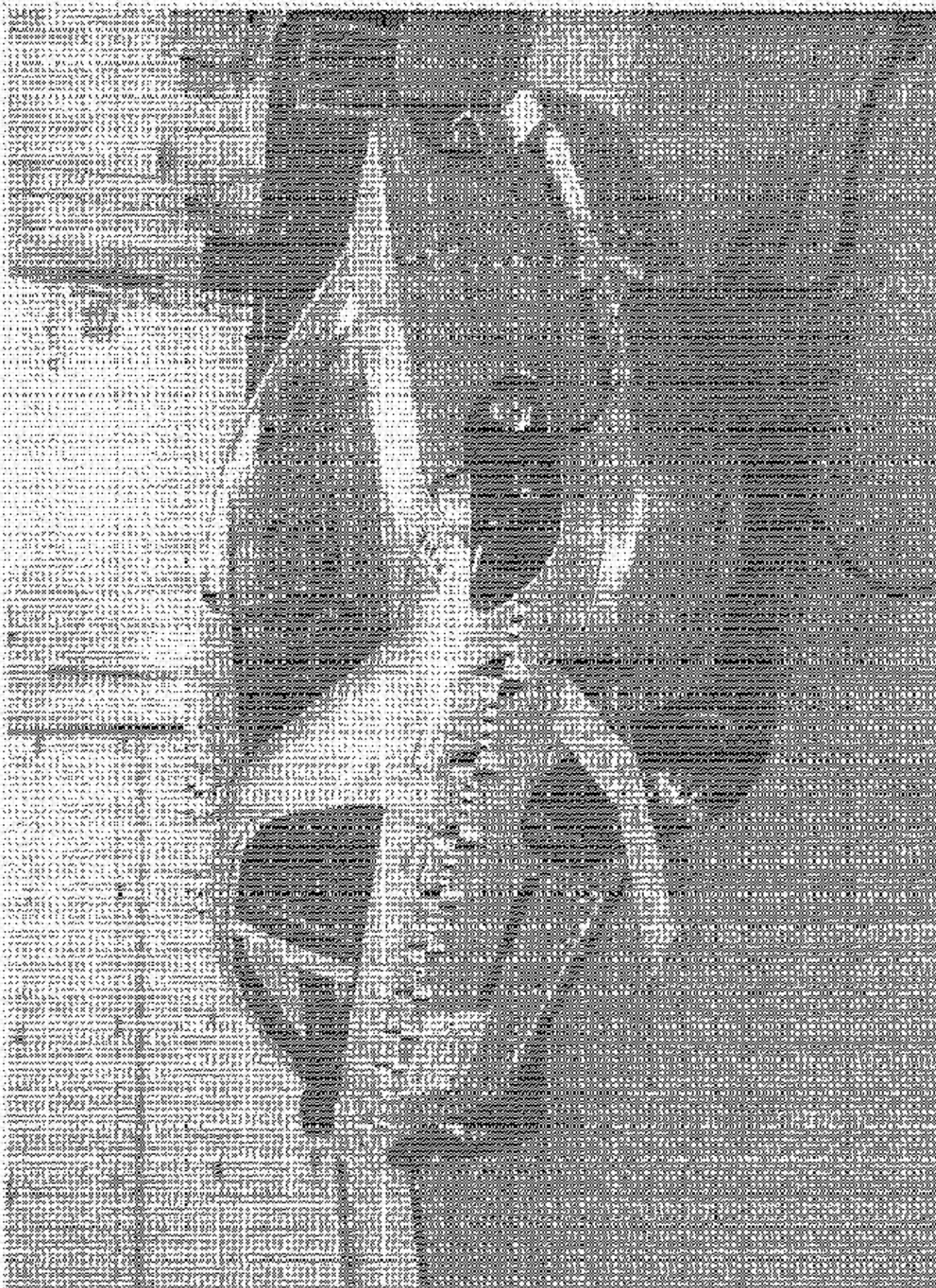
AP Photo/Chris Wedel, 1994

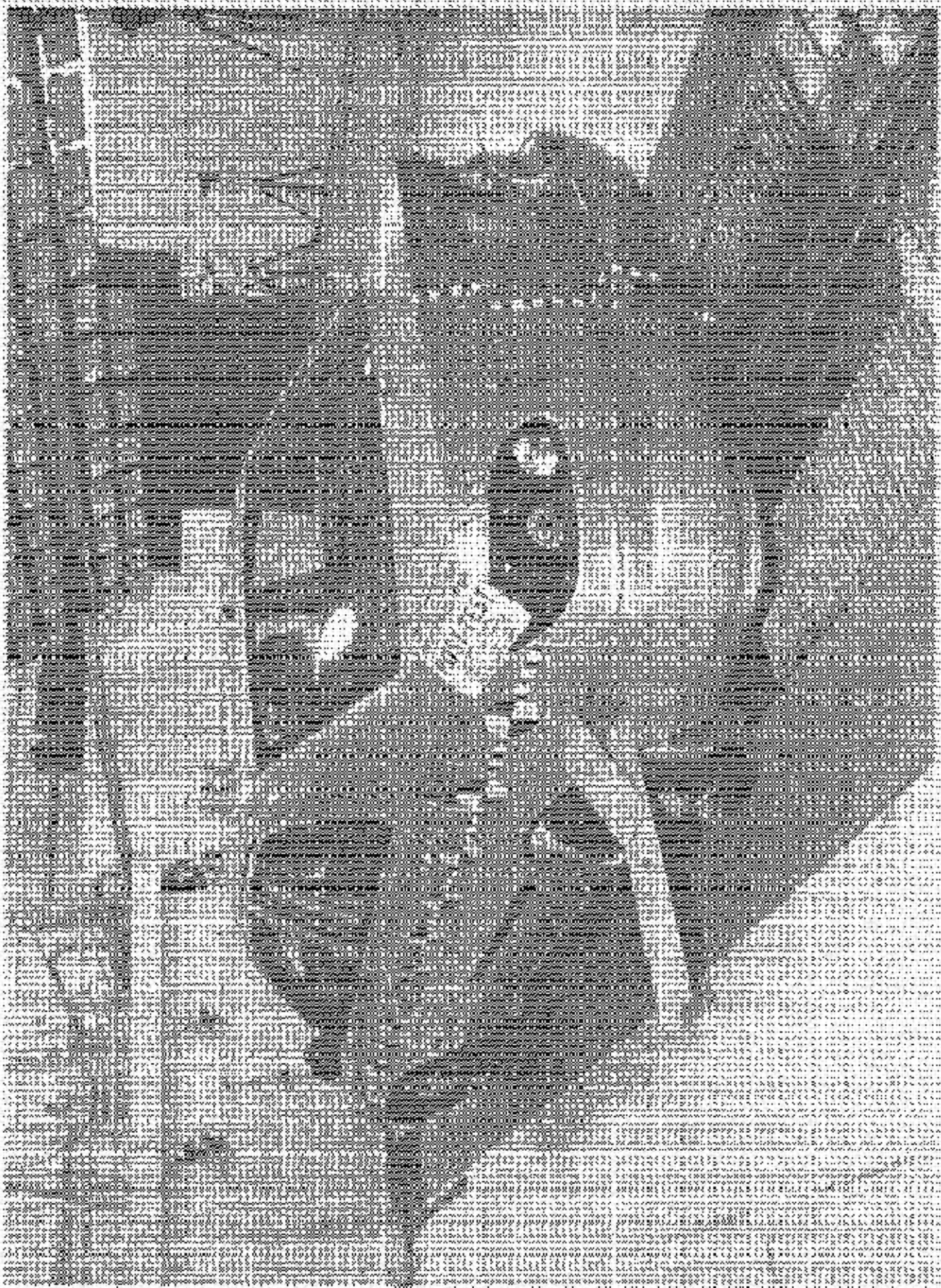












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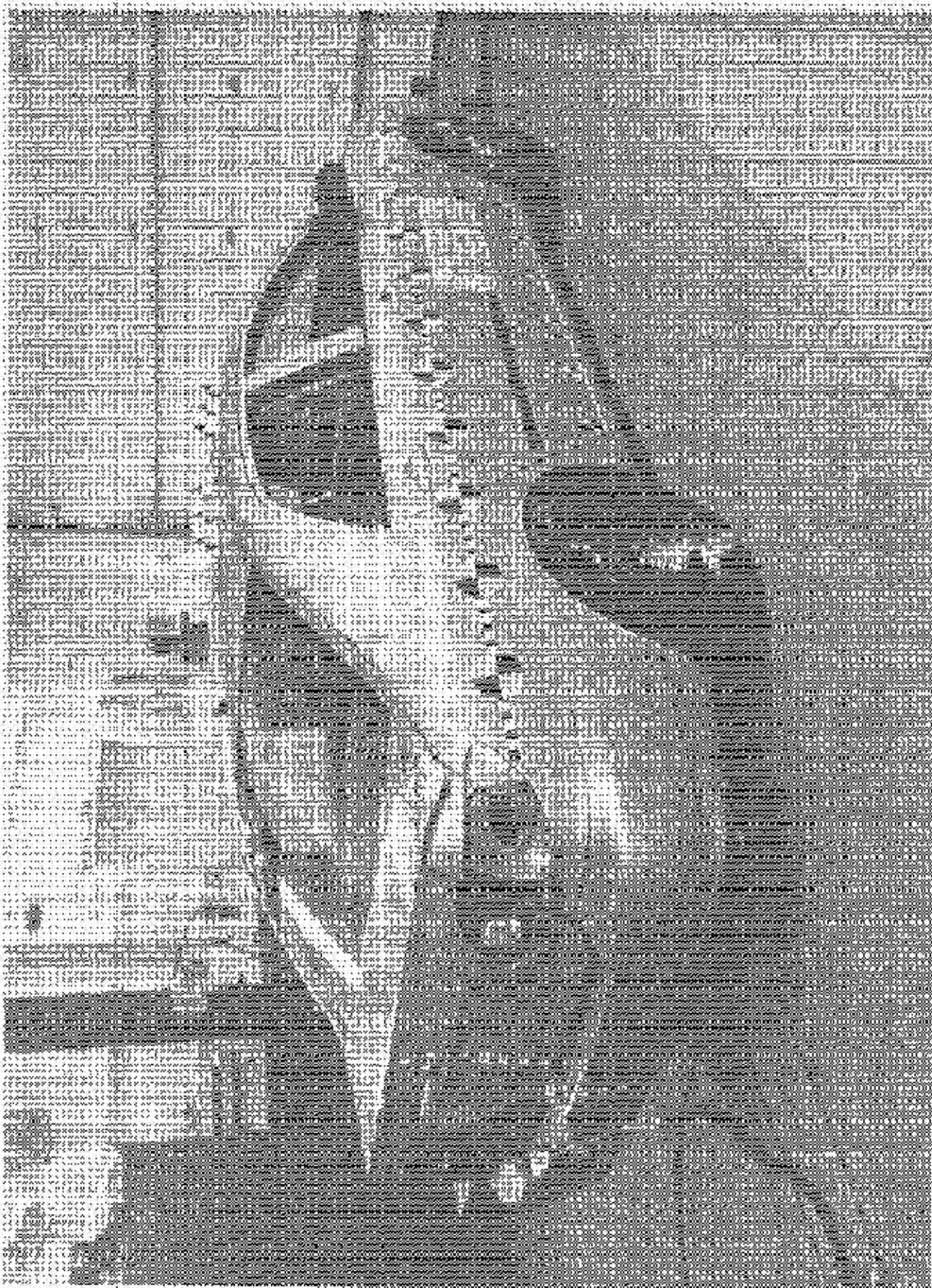
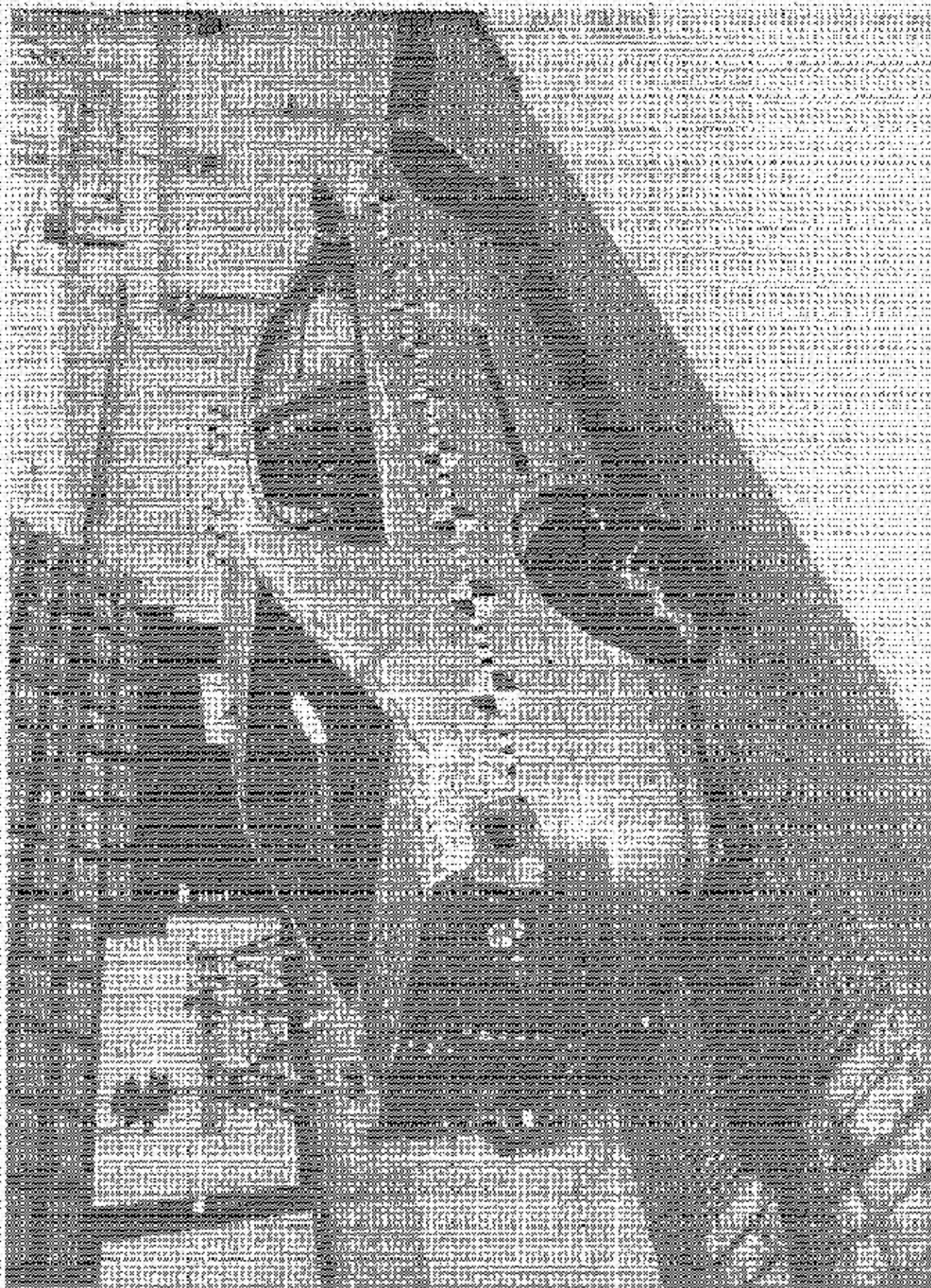
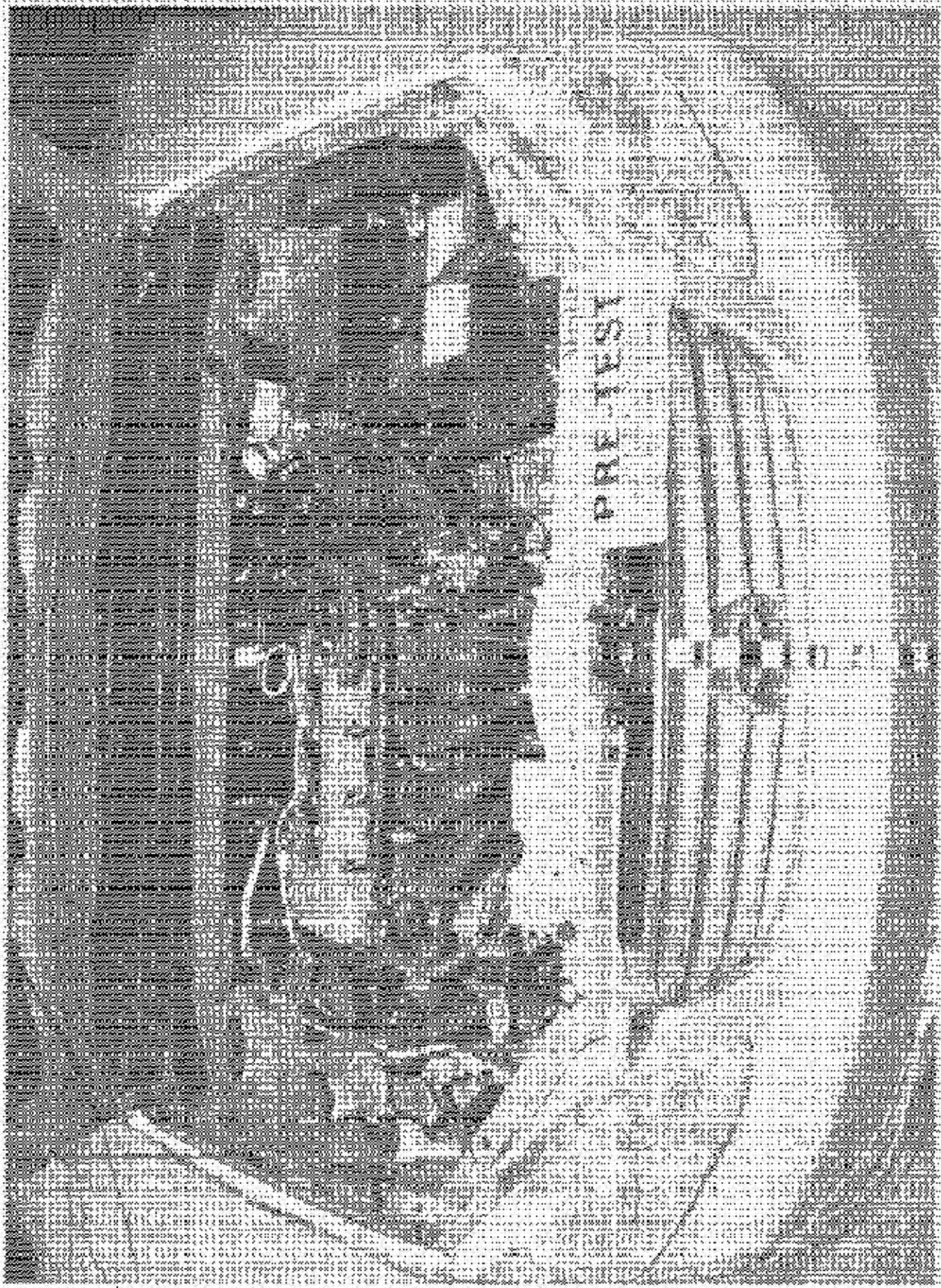


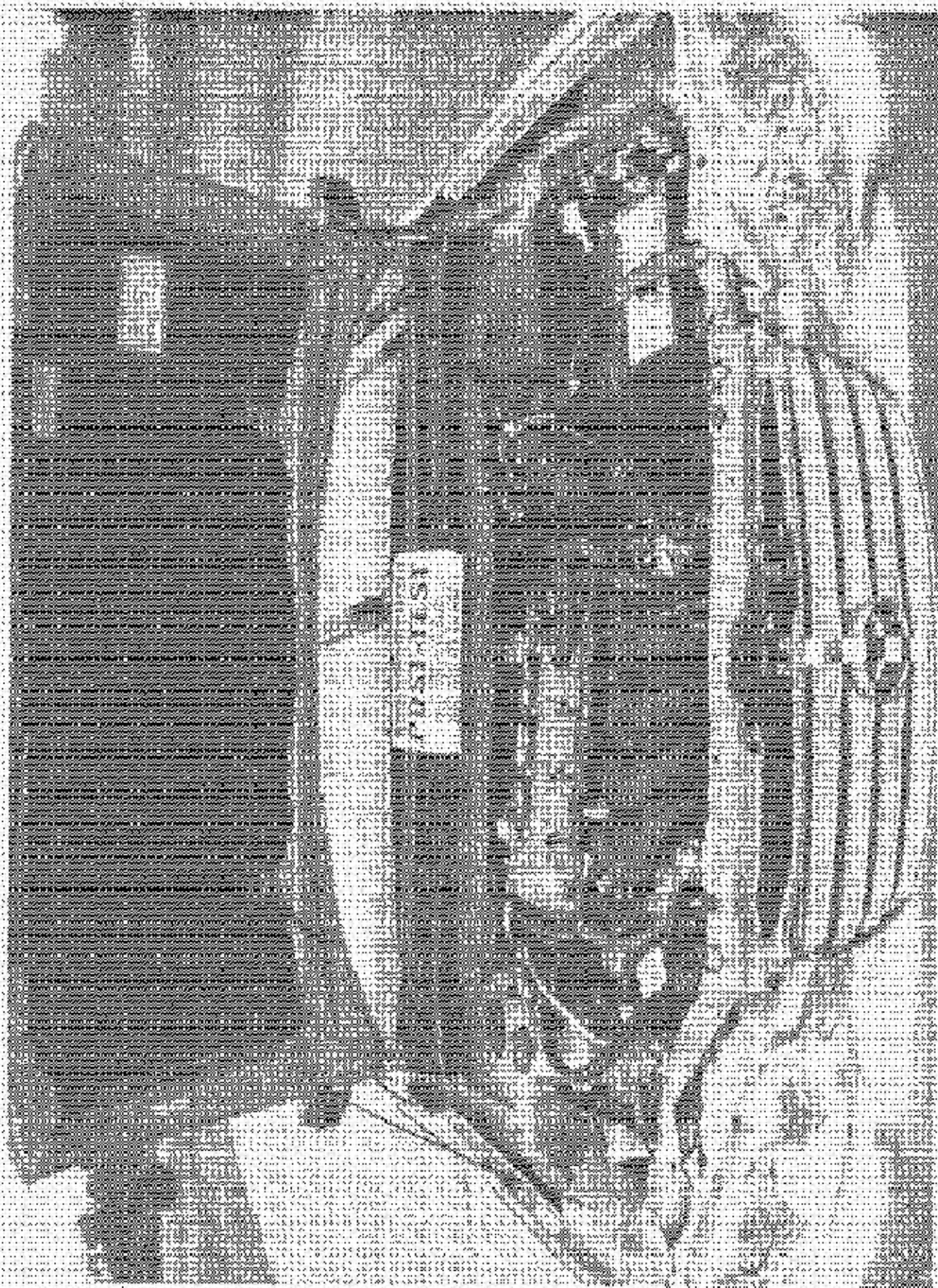
Figure 1. Aerial view of the study area, showing the location of the study area within the larger context of the region.



A vertical strip of a book's endpaper, showing a repeating pattern of small, stylized floral or leaf motifs. The pattern is printed in a dark ink on a light background. The strip is bordered by a dark, textured material, likely the book's cover or binding.



Copyright © 1995 by [illegible]



Man Test Engine Combustion Vessels

Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099
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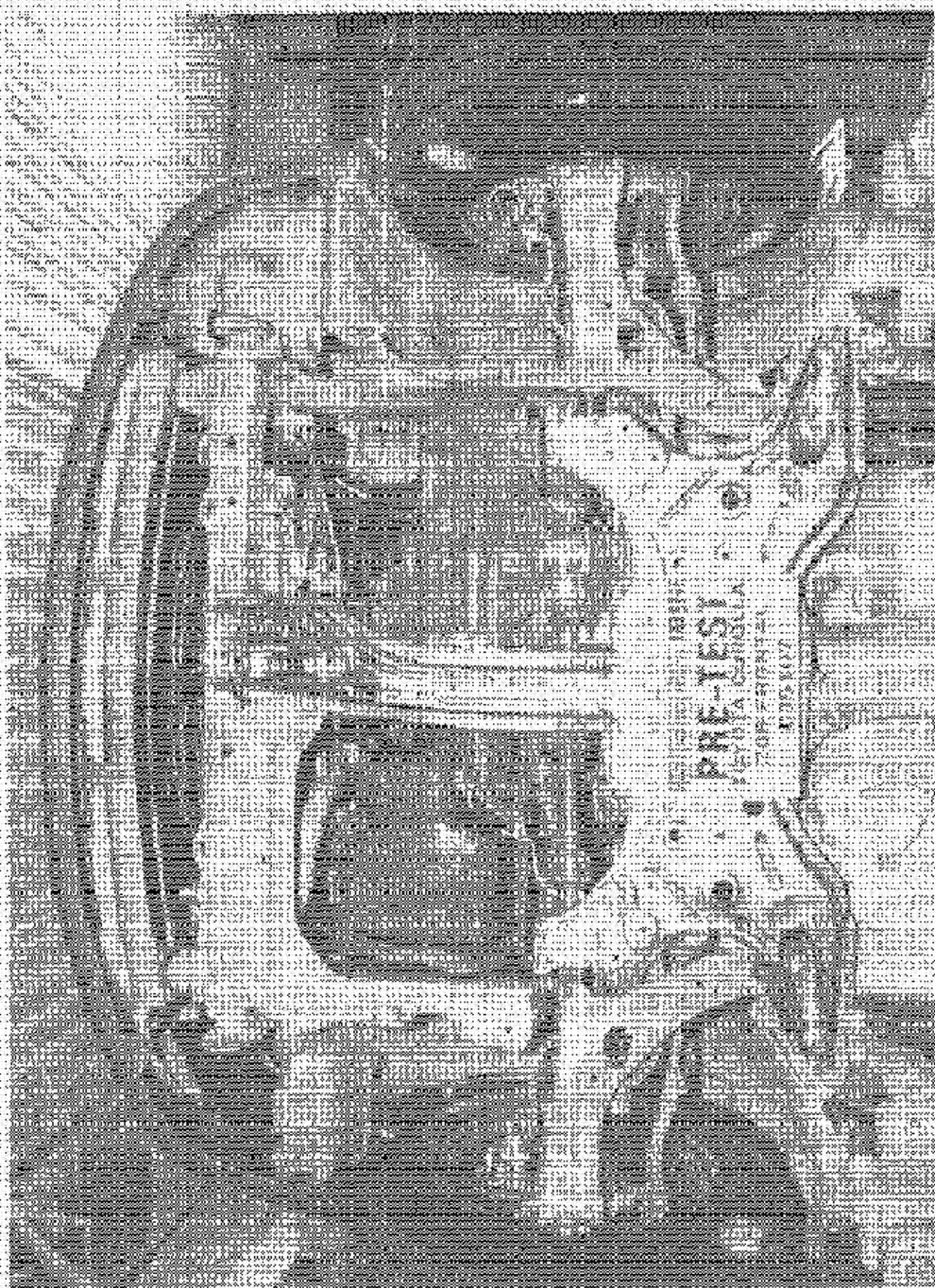




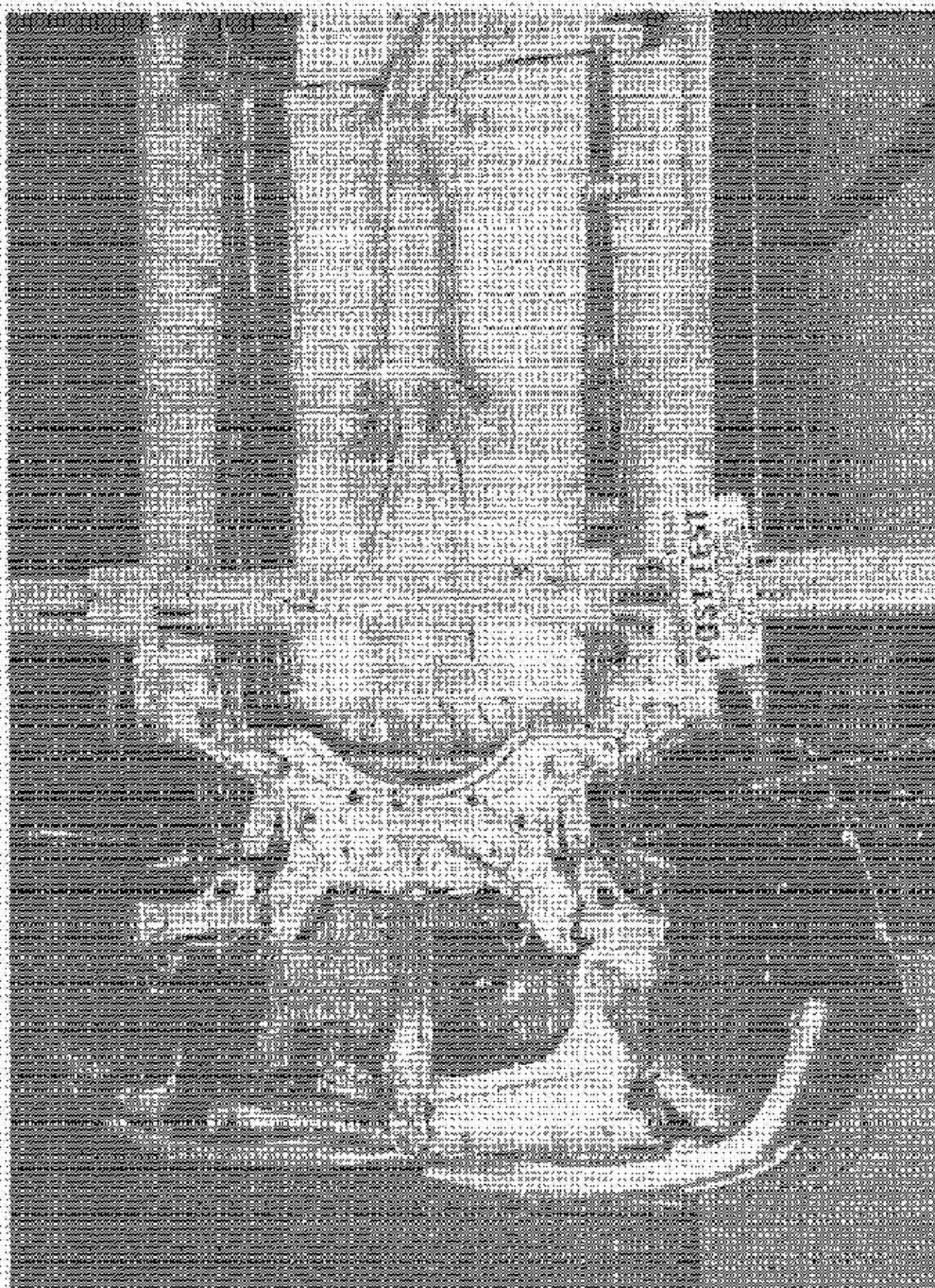
POST-TEST

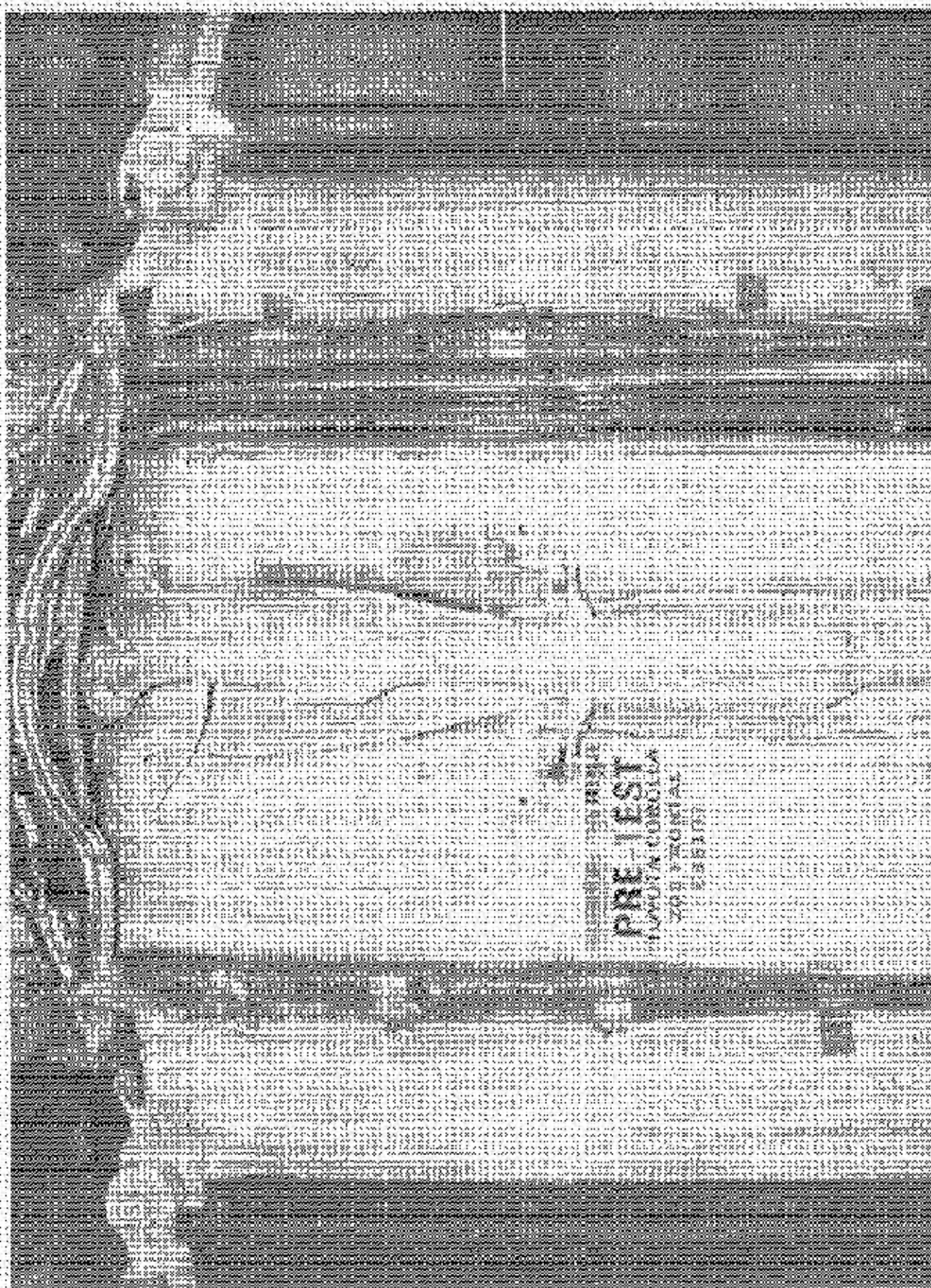
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2003 TOYOTA COROLLA
E35107 JUN 5 2003
MDA RESEARCH CORP



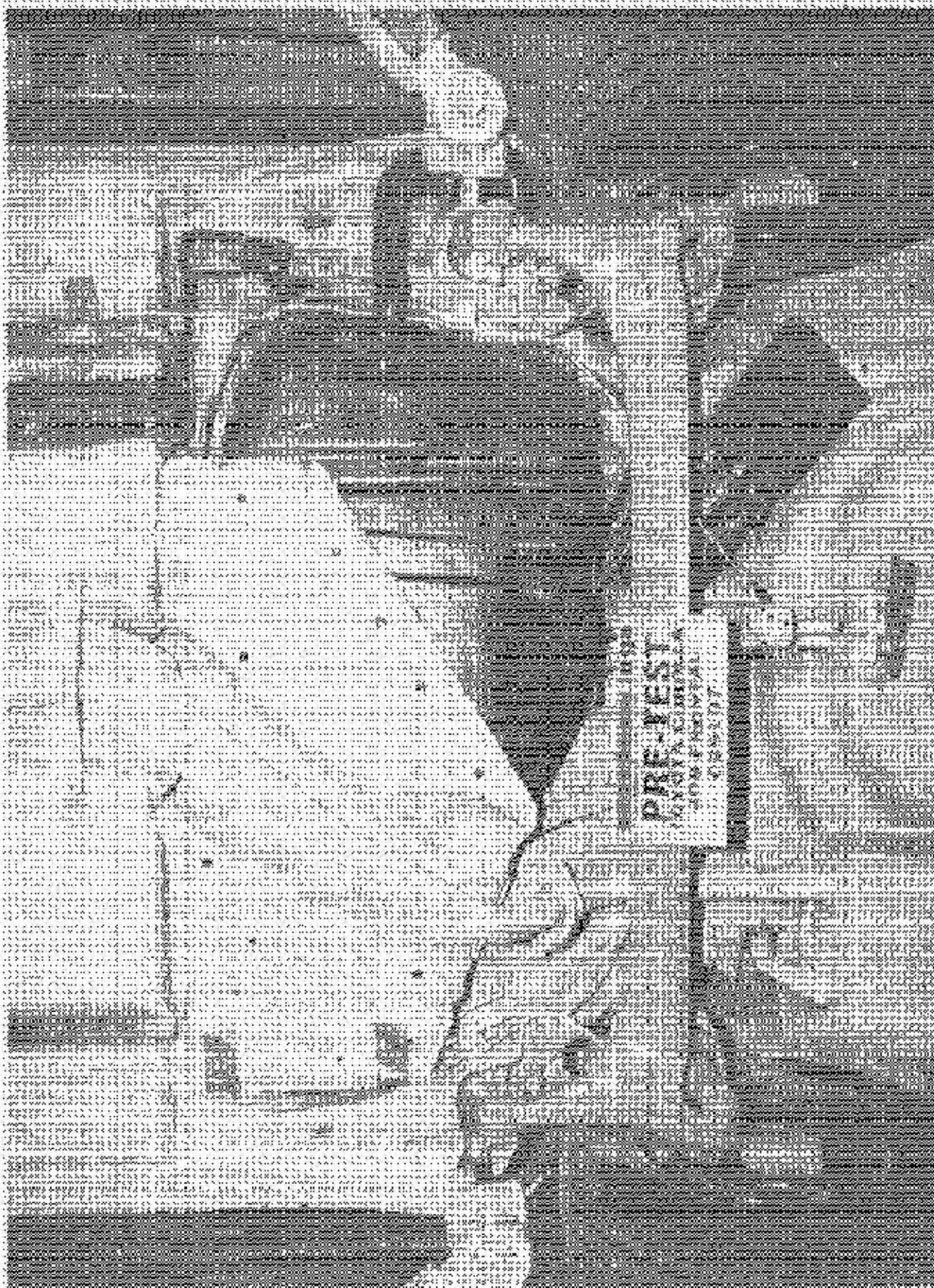


Printed in the United States of America

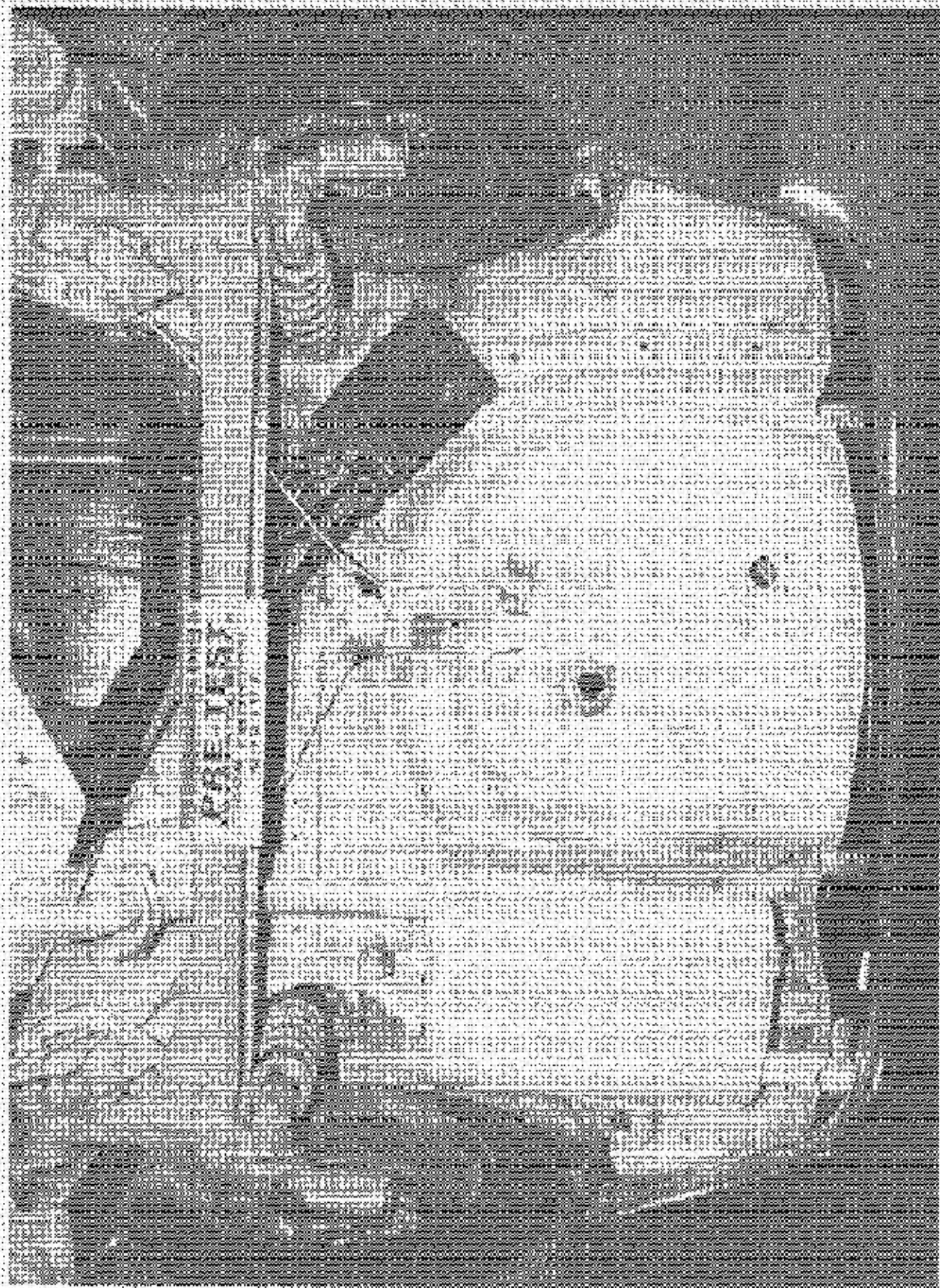




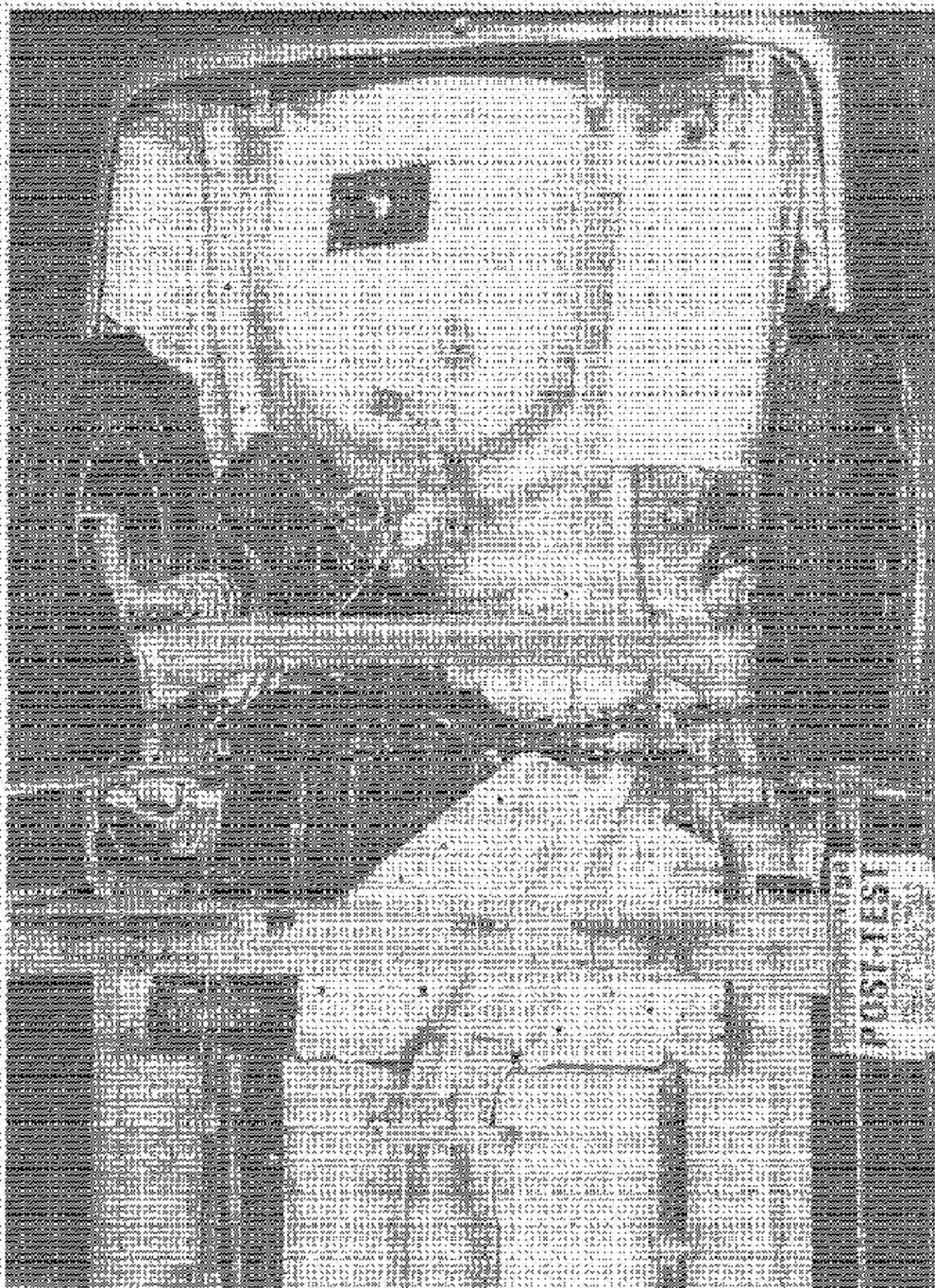
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2001-2002

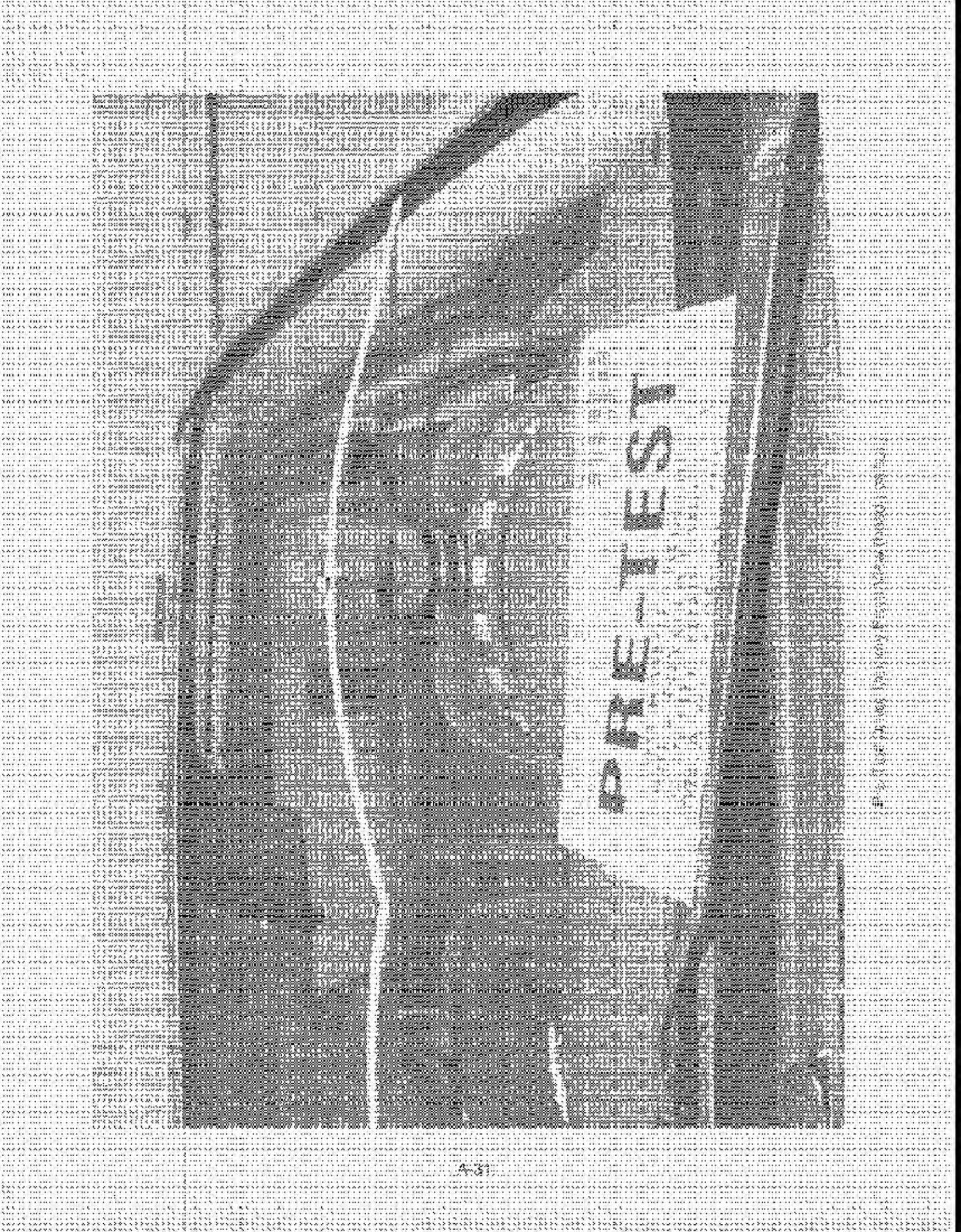


APR 19 1964



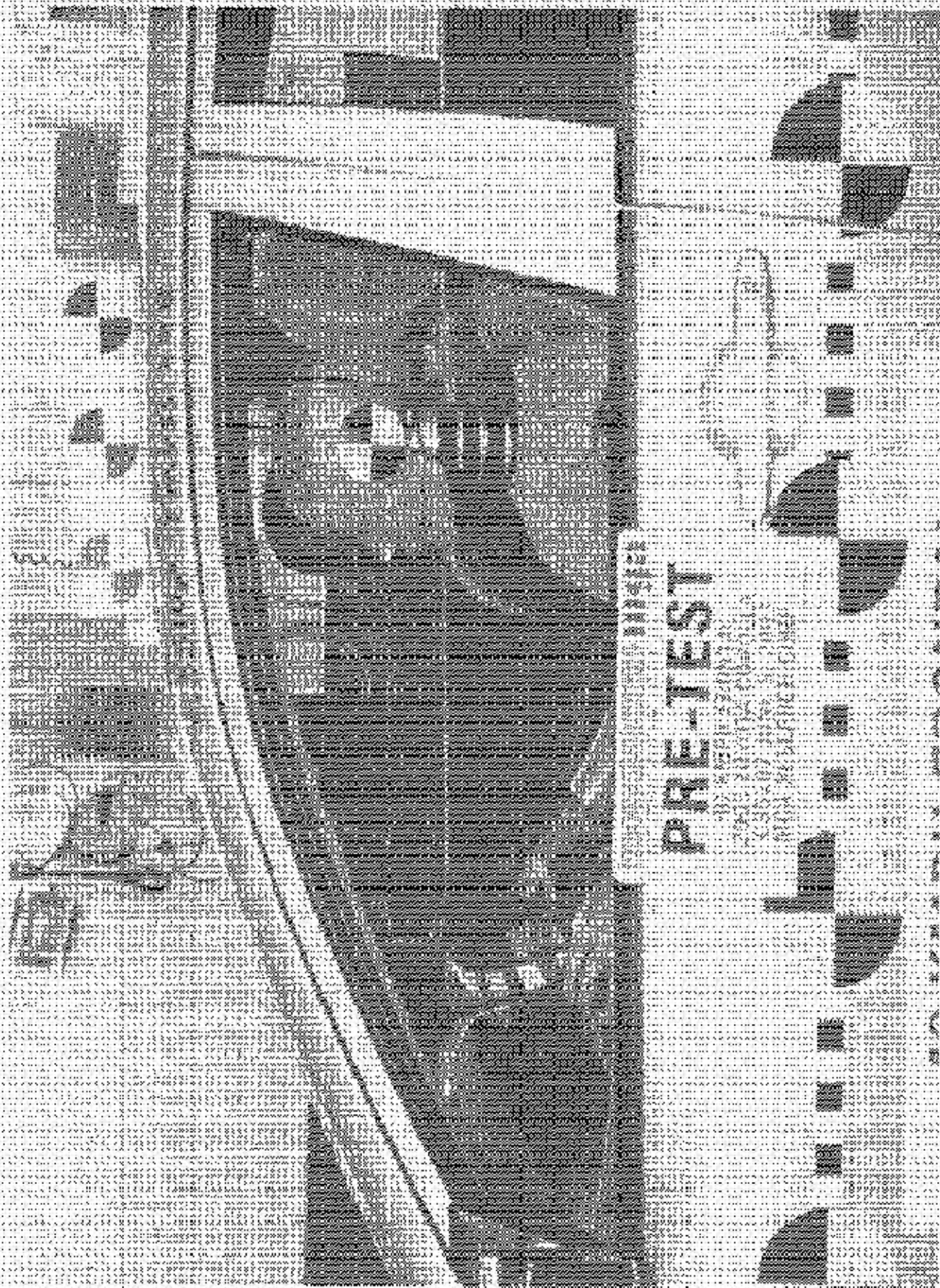
Front View of Rock (Indistinct View)



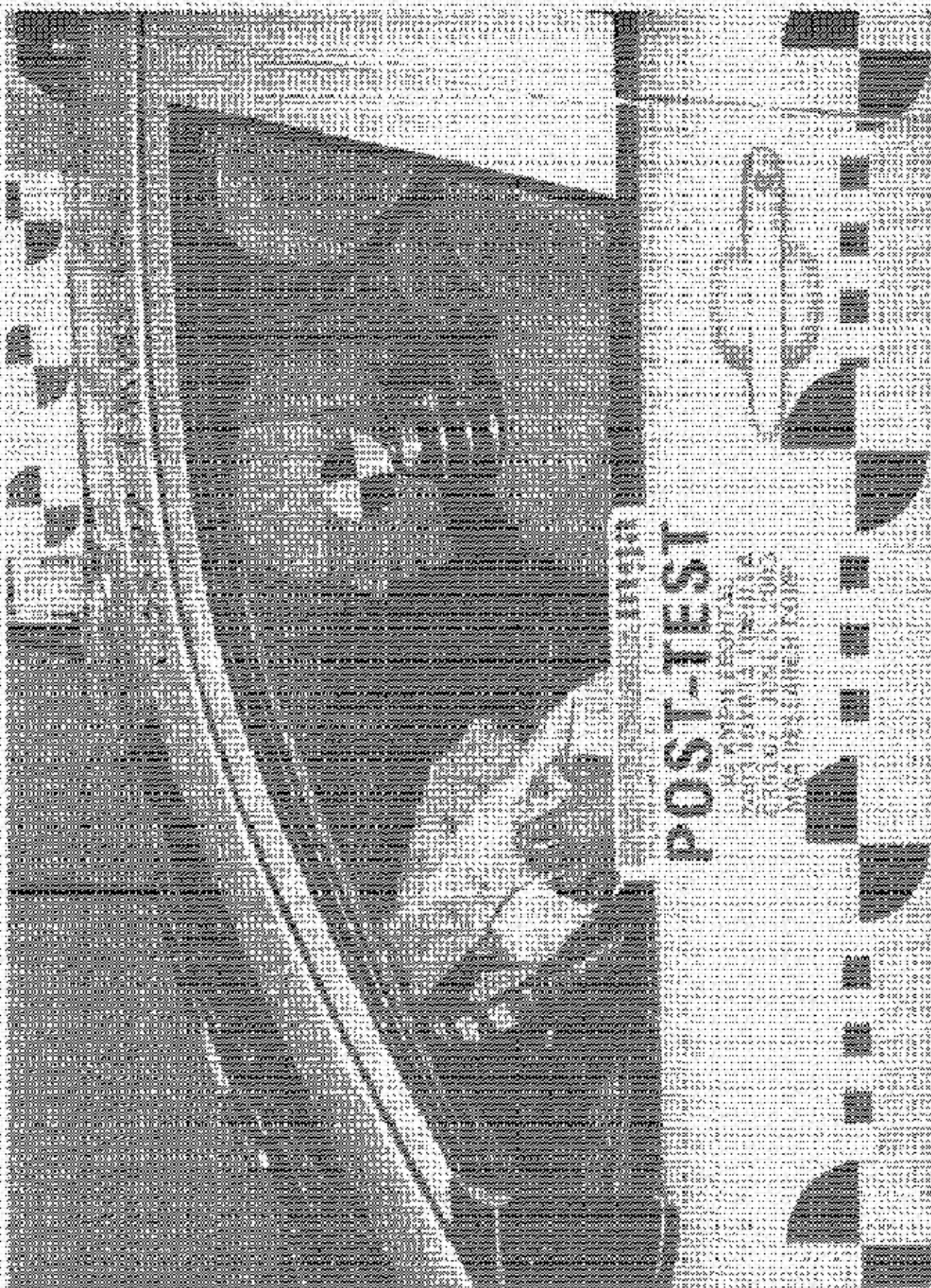


ESTABLISHED
1888





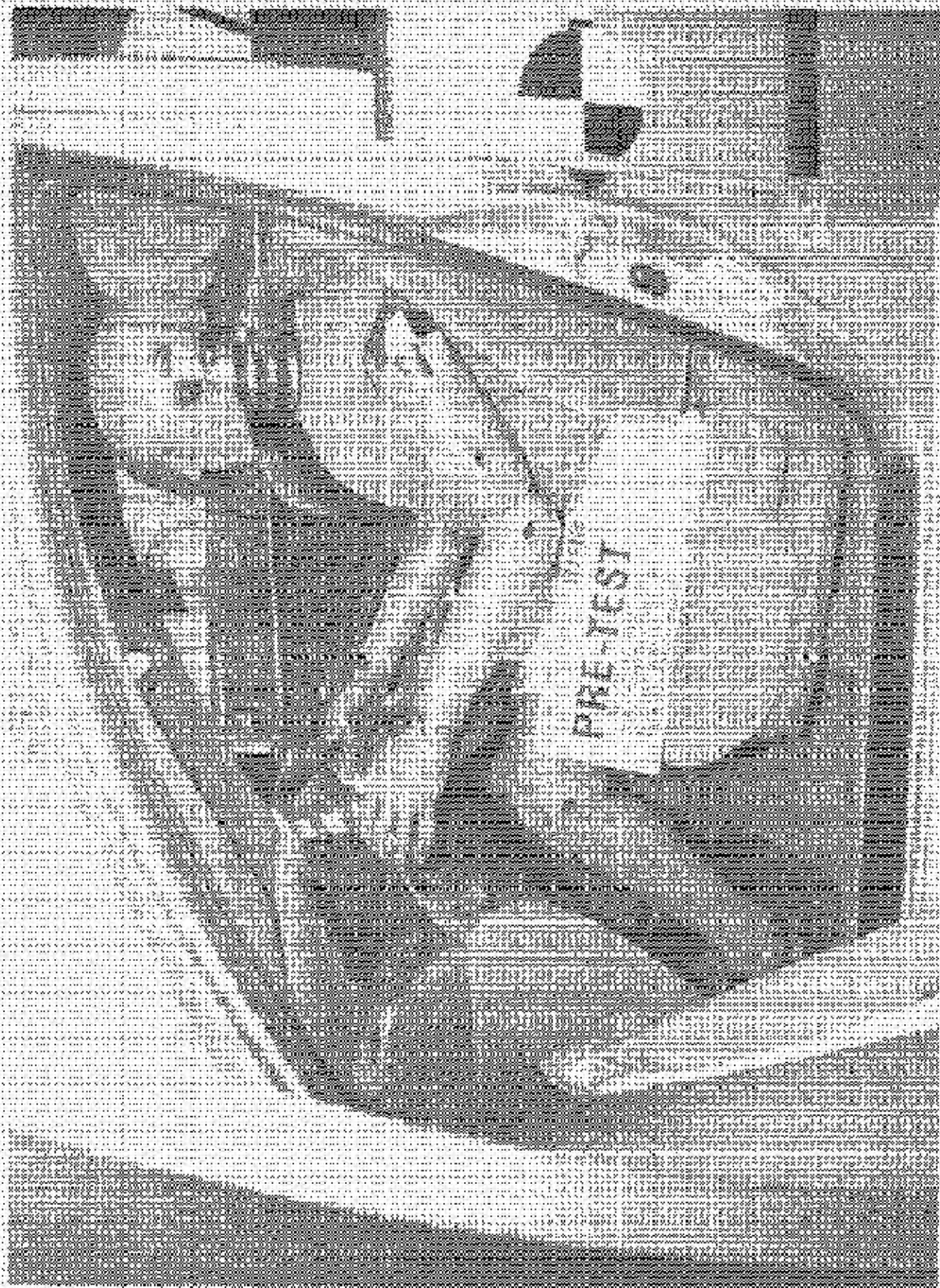
PRE-TEST ORIGIN: DOWNEY POSITION FOR SOLAR VIEW



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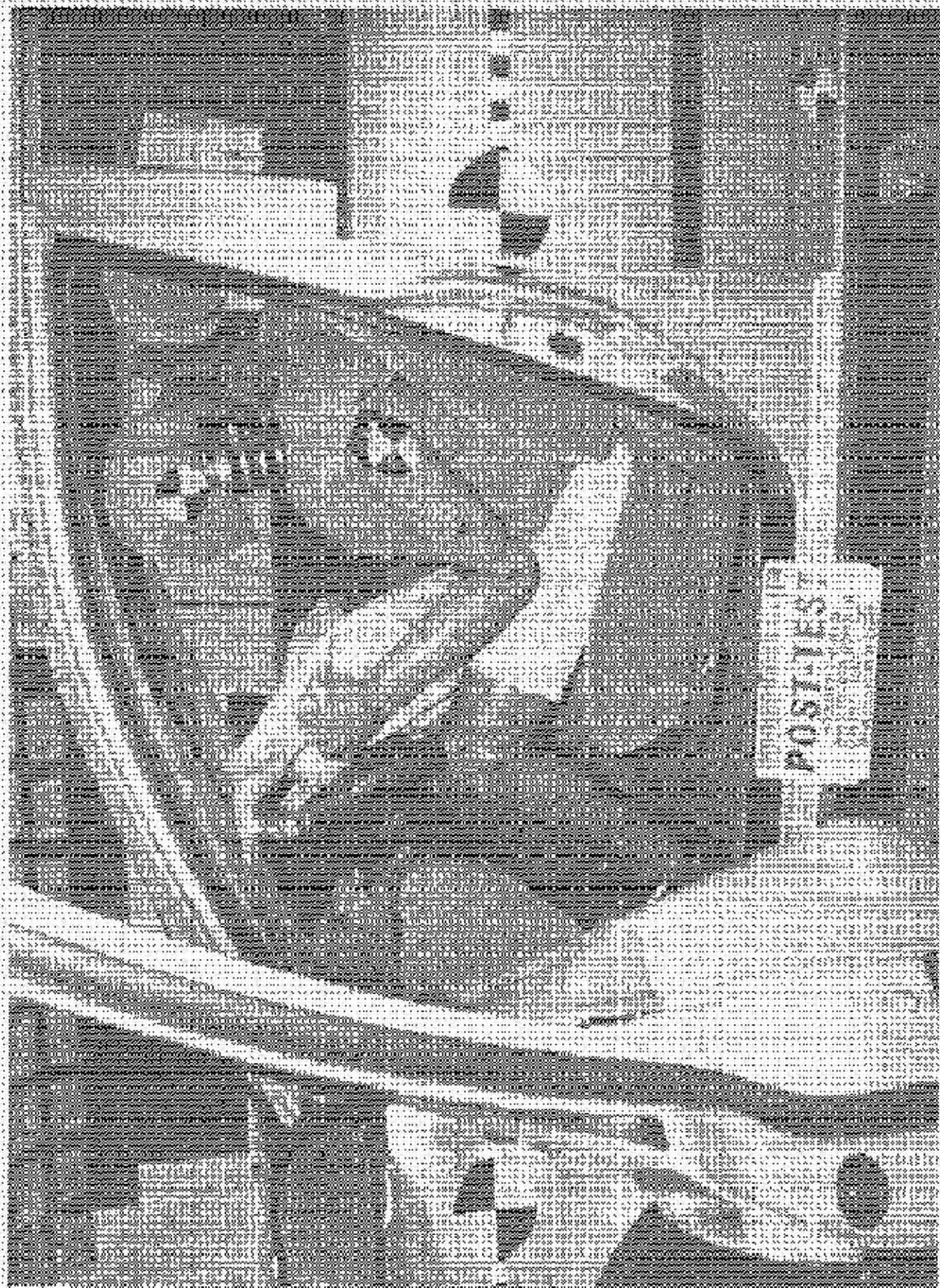
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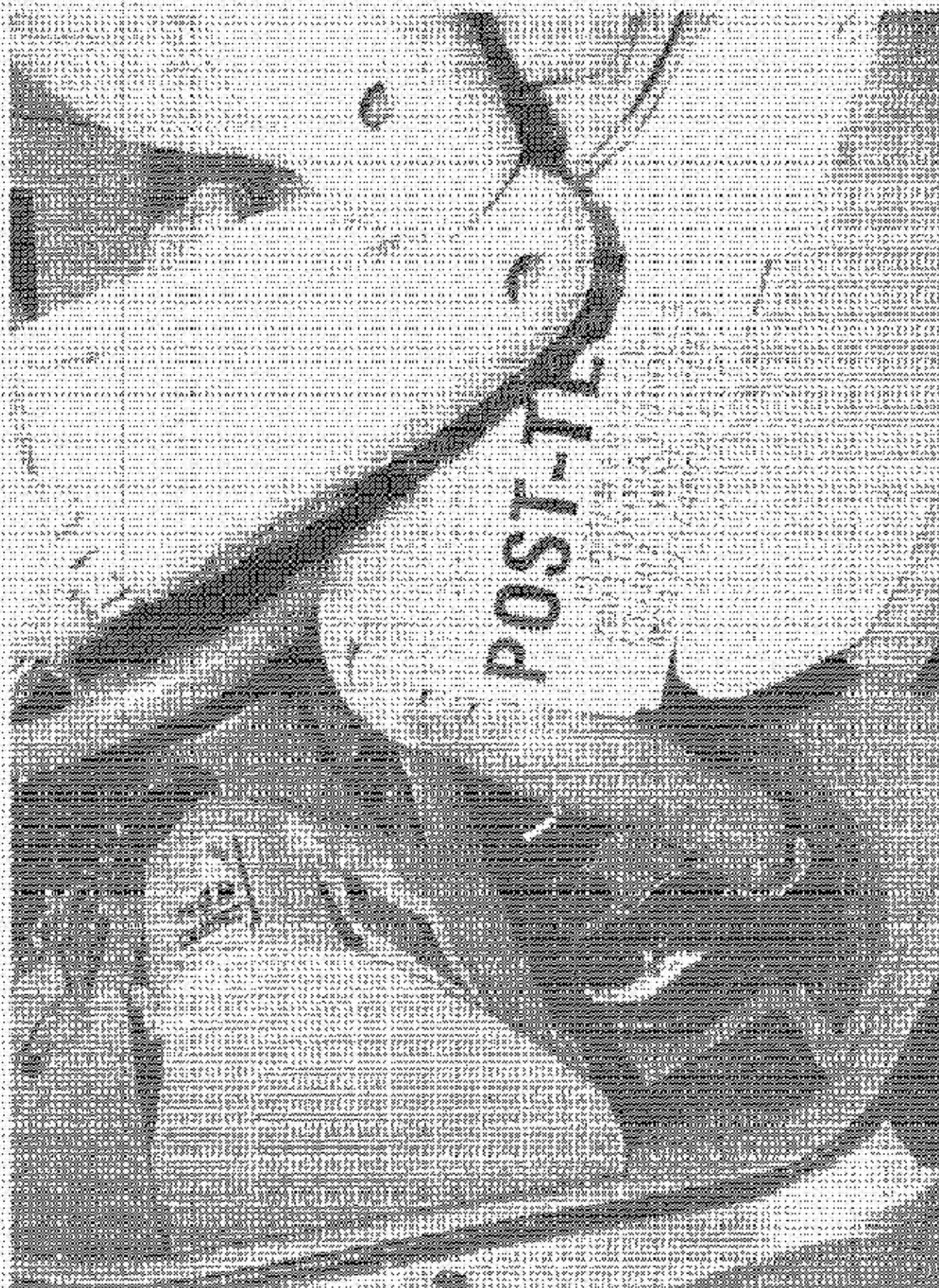
PRE-TEST

PHOTOGRAPH BY THE U.S. AIR FORCE, 1964, VIEW FROM THE GROUND





PRE-TEST



POST-T

100% COTTON

PRE-TEST

10 KMH, 100000
2003 TOYOTA COROLLA
C-15107 HUNTER, 10003
MCA RESURFACING CORP.

PRE-TEST DIMEI SIDE POSITIVE VIEW

POST-TEST

POST-TEST

40 MPH FRONTAL
2003 TOYOTA COROLLA
C35107 JUNE 9, 2003
MGA RESEARCH CORP.

POST-TEST DATA SHEET

10-11-68 10:00 AM 100-44-10000

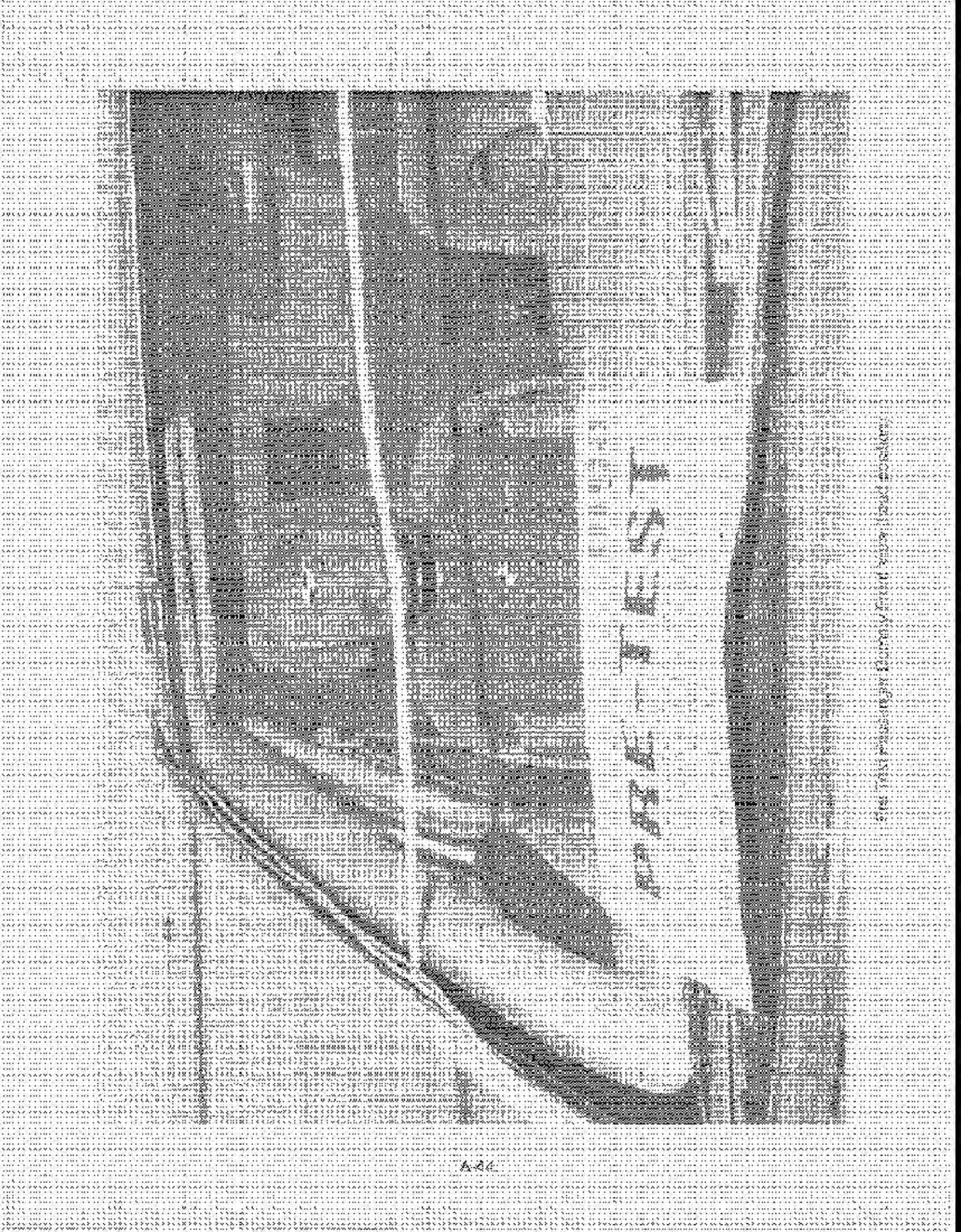


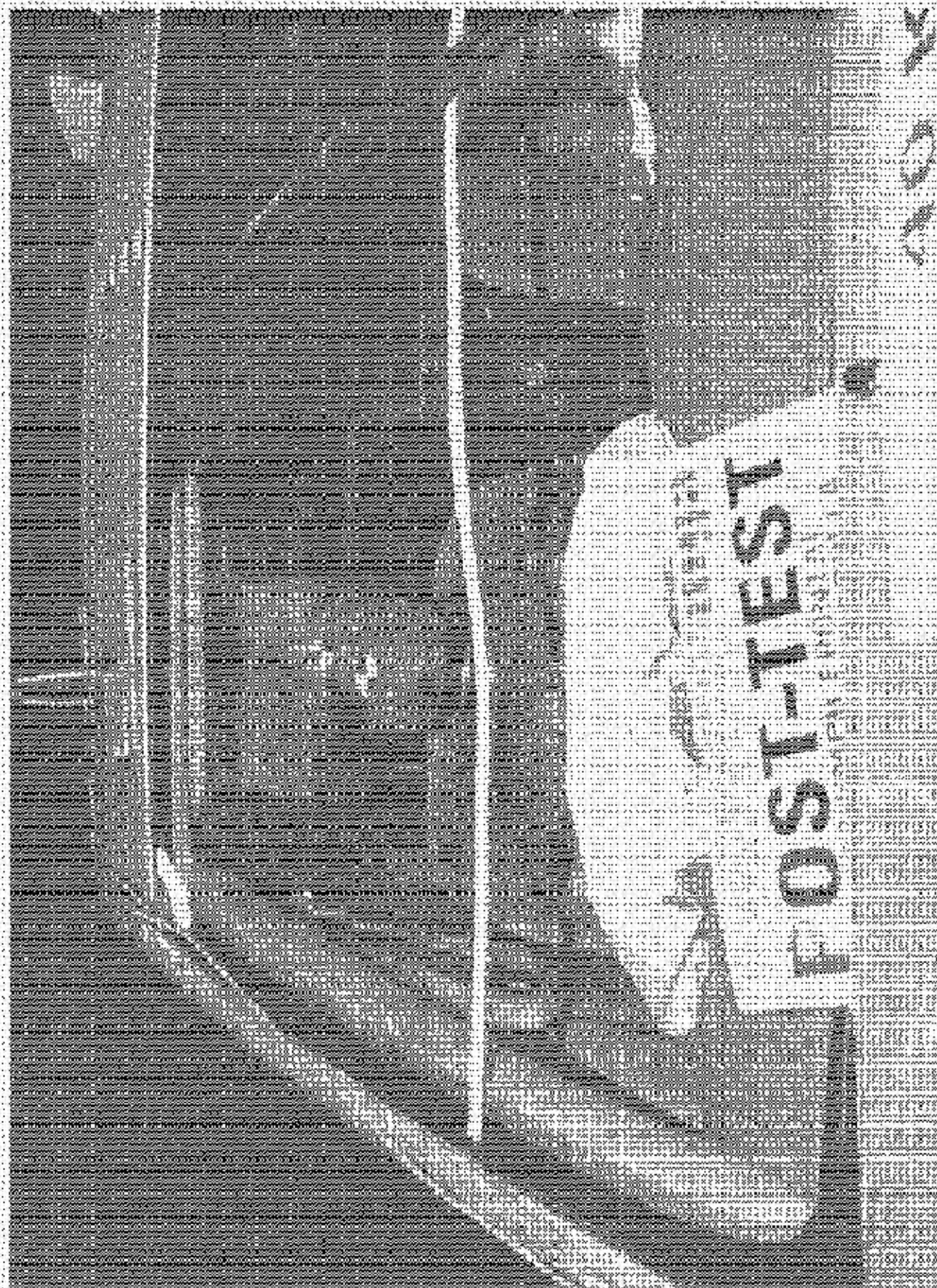


Photo: Paul Driver, Courtesy: Media Company

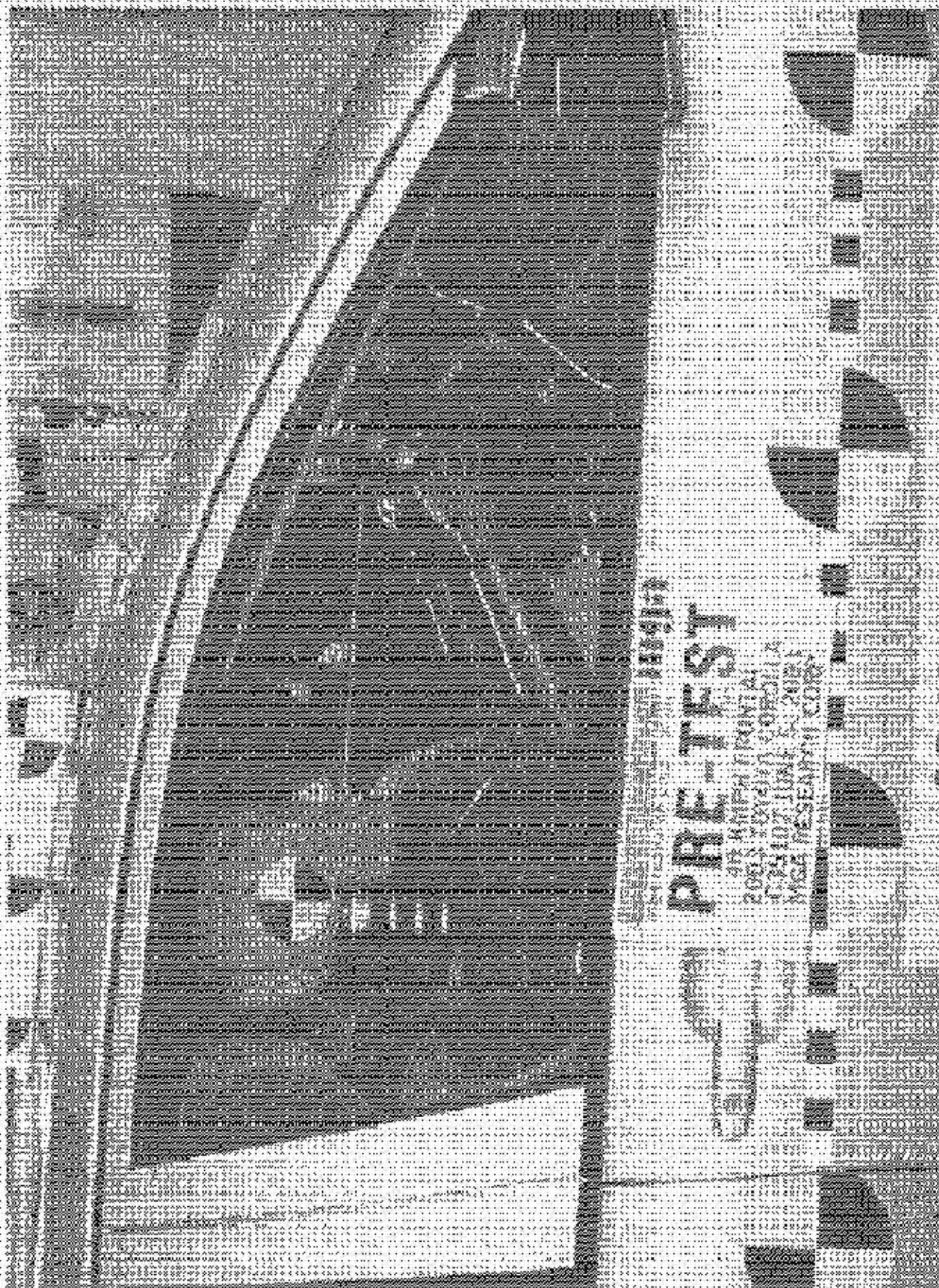
HOW THE DRIVER DURING A RACE







PHOTOGRAPH BY JIMMY HARRIS FOR THE NEW YORK TIMES

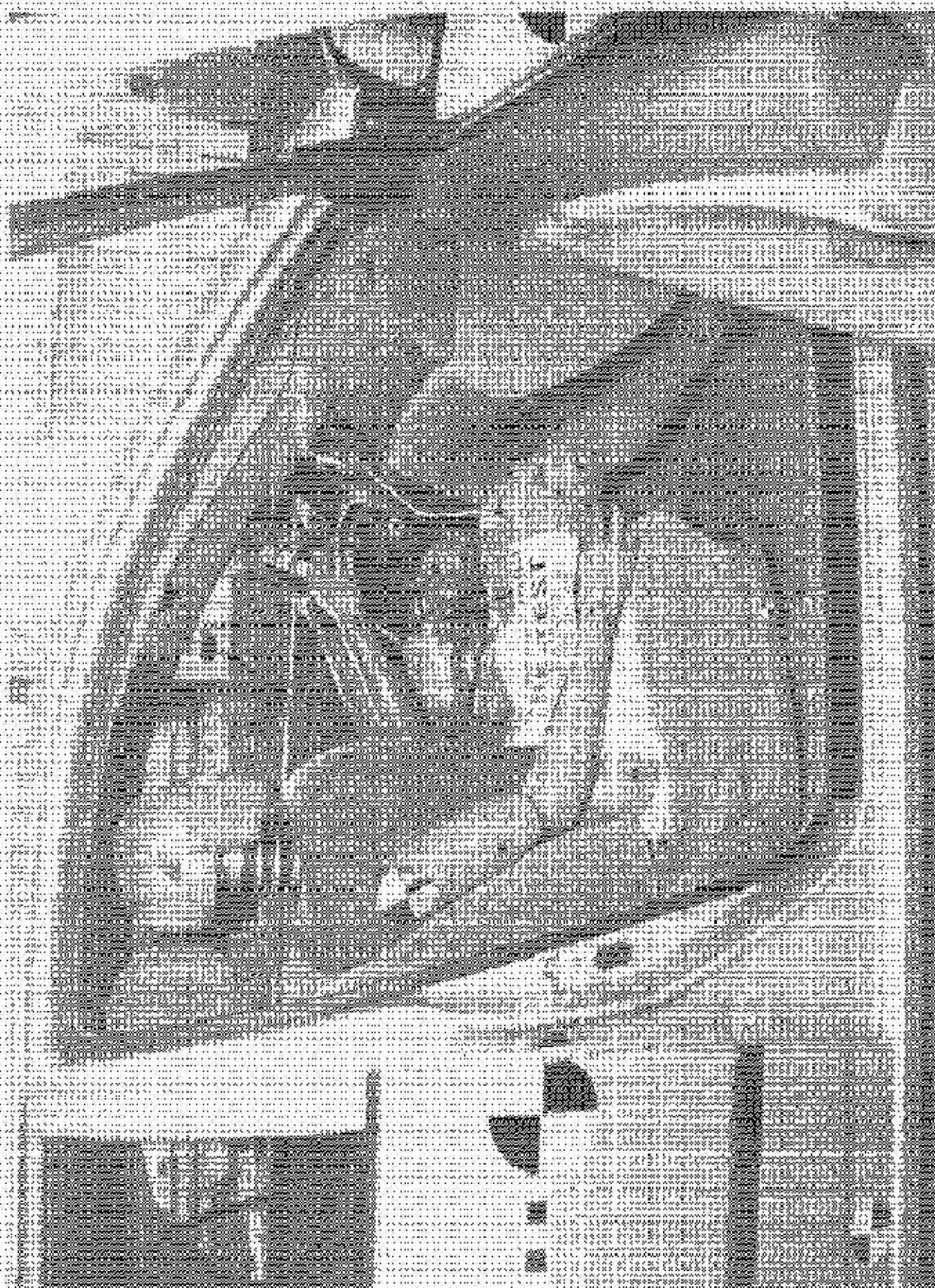


PRE-TEST

48 WMPH FRONT
200X 100X 100 CORONA
C24 107 JUL 15 2001
MAGE RESEARCH CORP

Full Test Presentation Display Panel 100x100x100

Two-ton wasserproofed diving bell, built by the Navy, is shown in the foreground.





PRE-TEST PANTS (Left) and (Right) (Right)



012912

PRE-TEST

40 KM/H FRONTAL
2003 TOYOTA COROLLA
C35107 JUNE 5, 2003
MGA RESEARCH CORP.

POST-TEST

POST-TEST

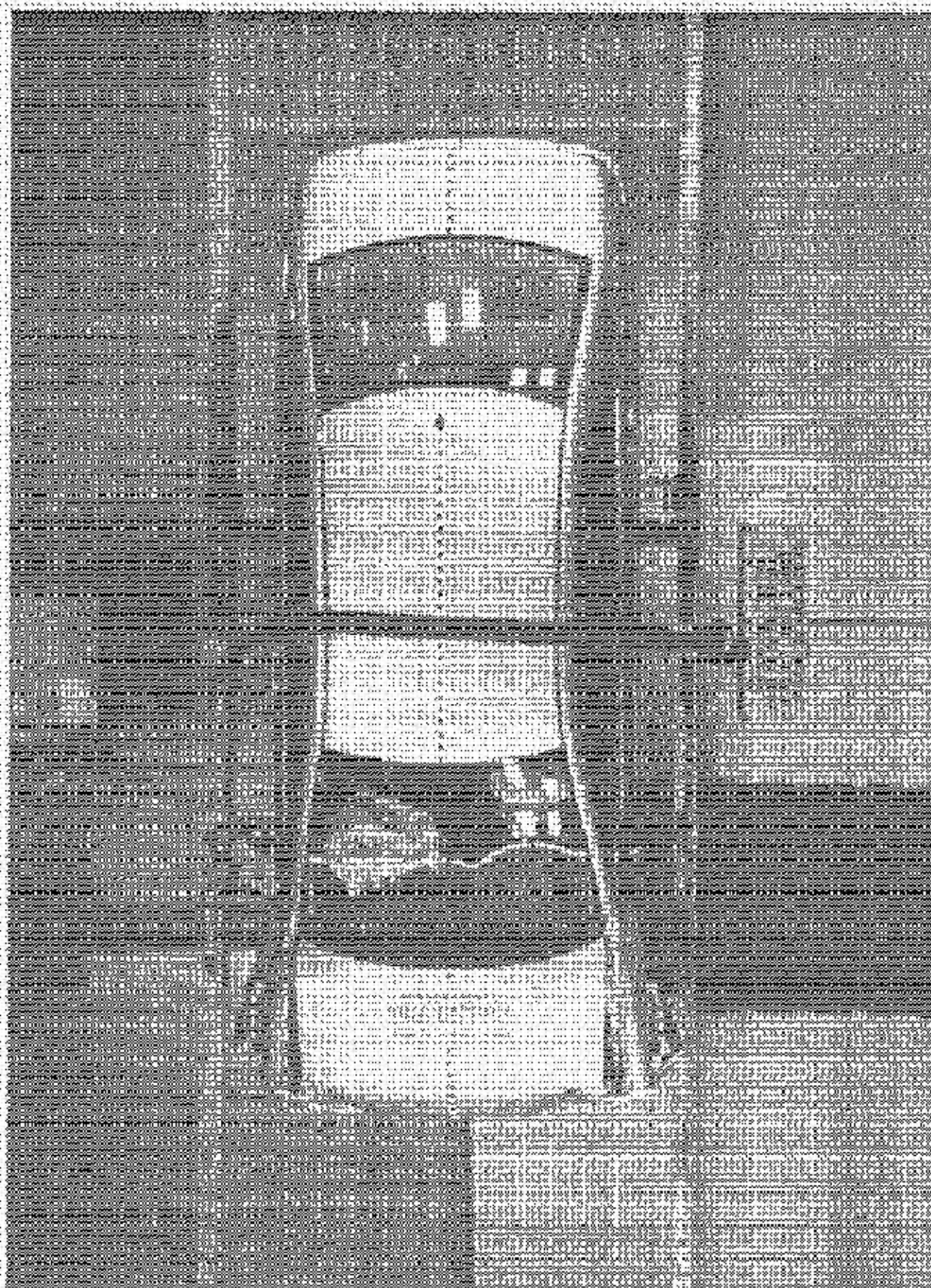
40 KIMPH FRONTAL
2003 TOYOTA COROLLA
C35107 JUNE 5, 2003
MGA RESEARCH CORP.

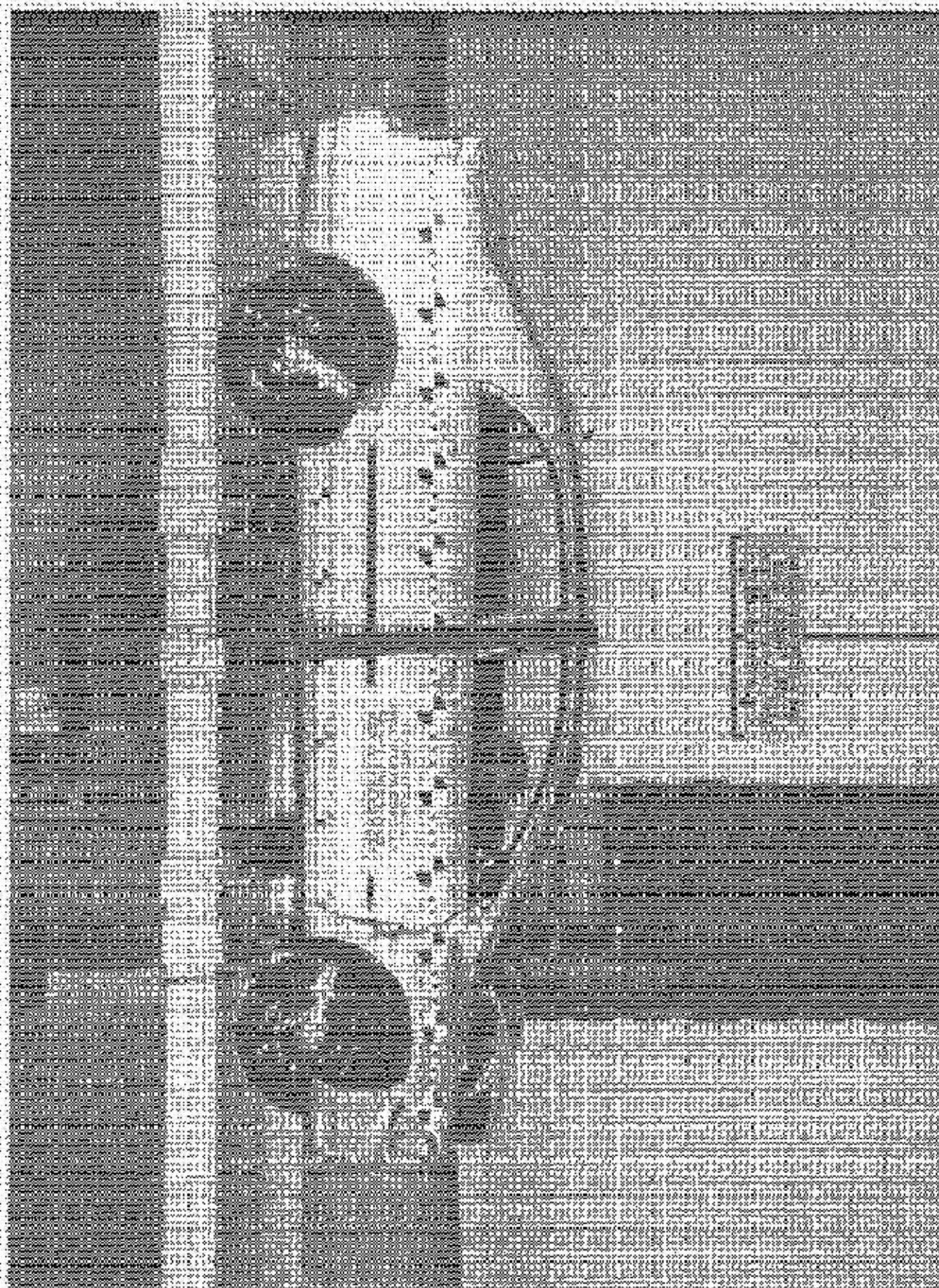
POST-TEST and/or other words may appear

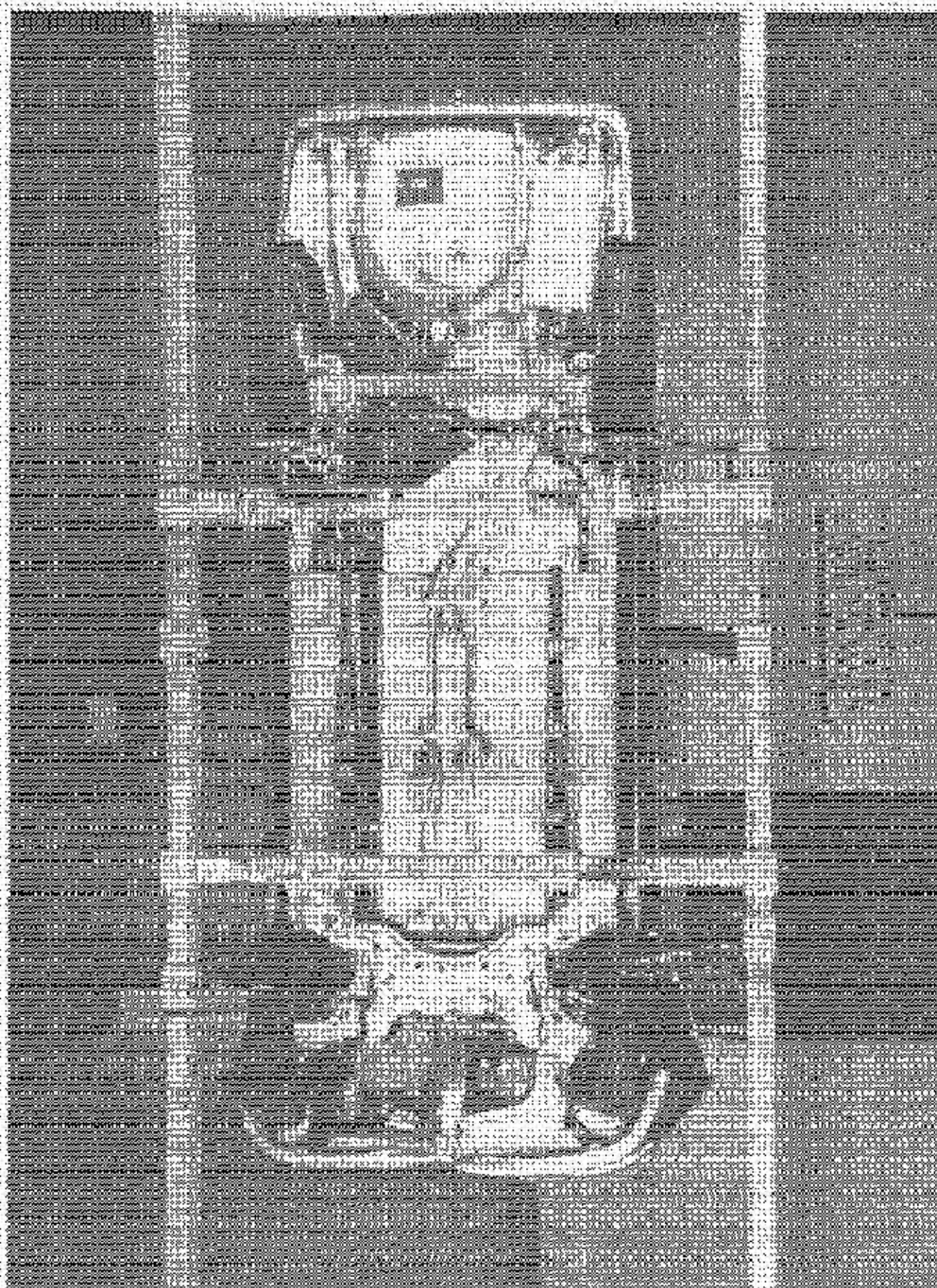


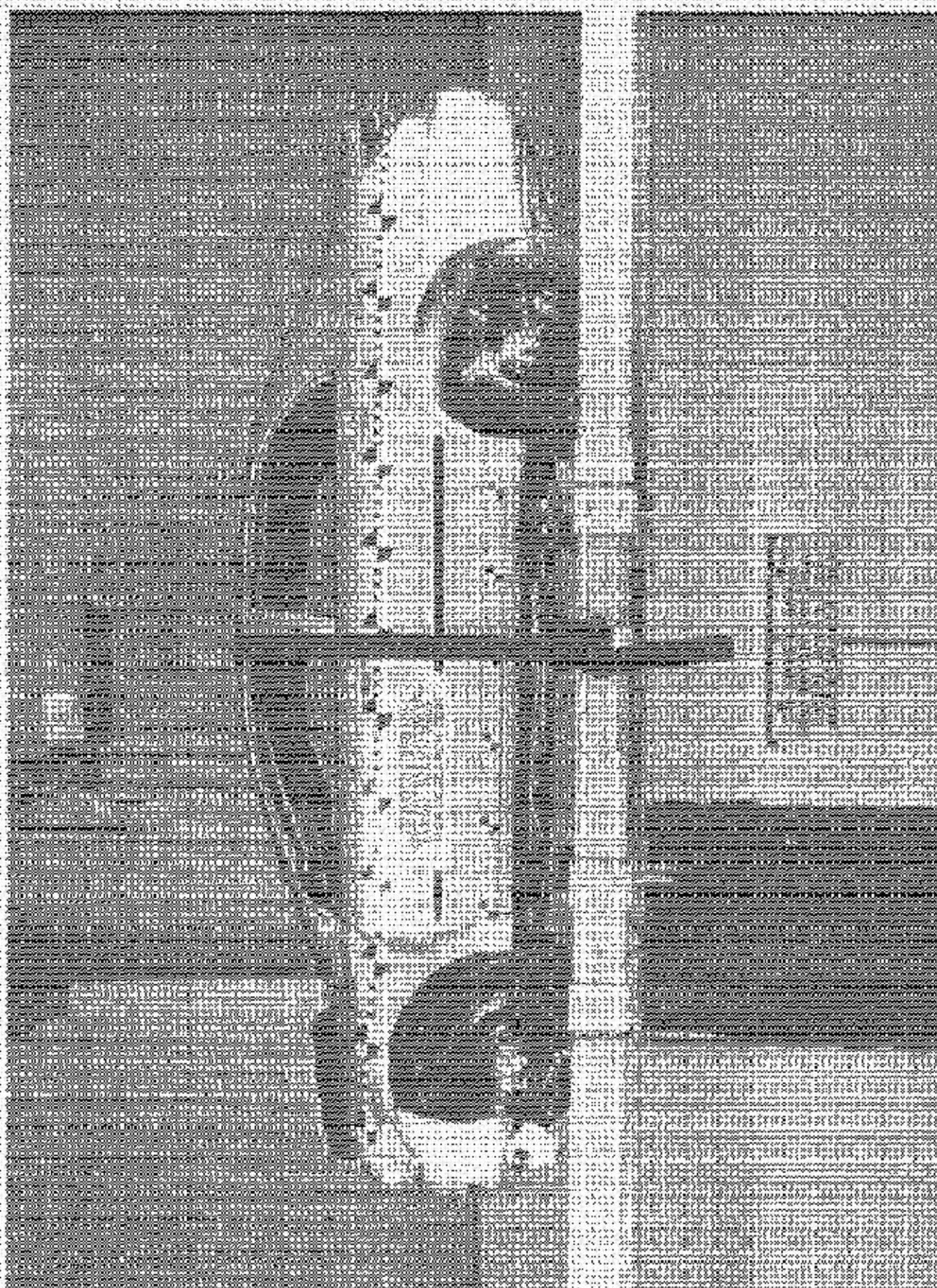
Post-Test (see page 10) (see page 10)

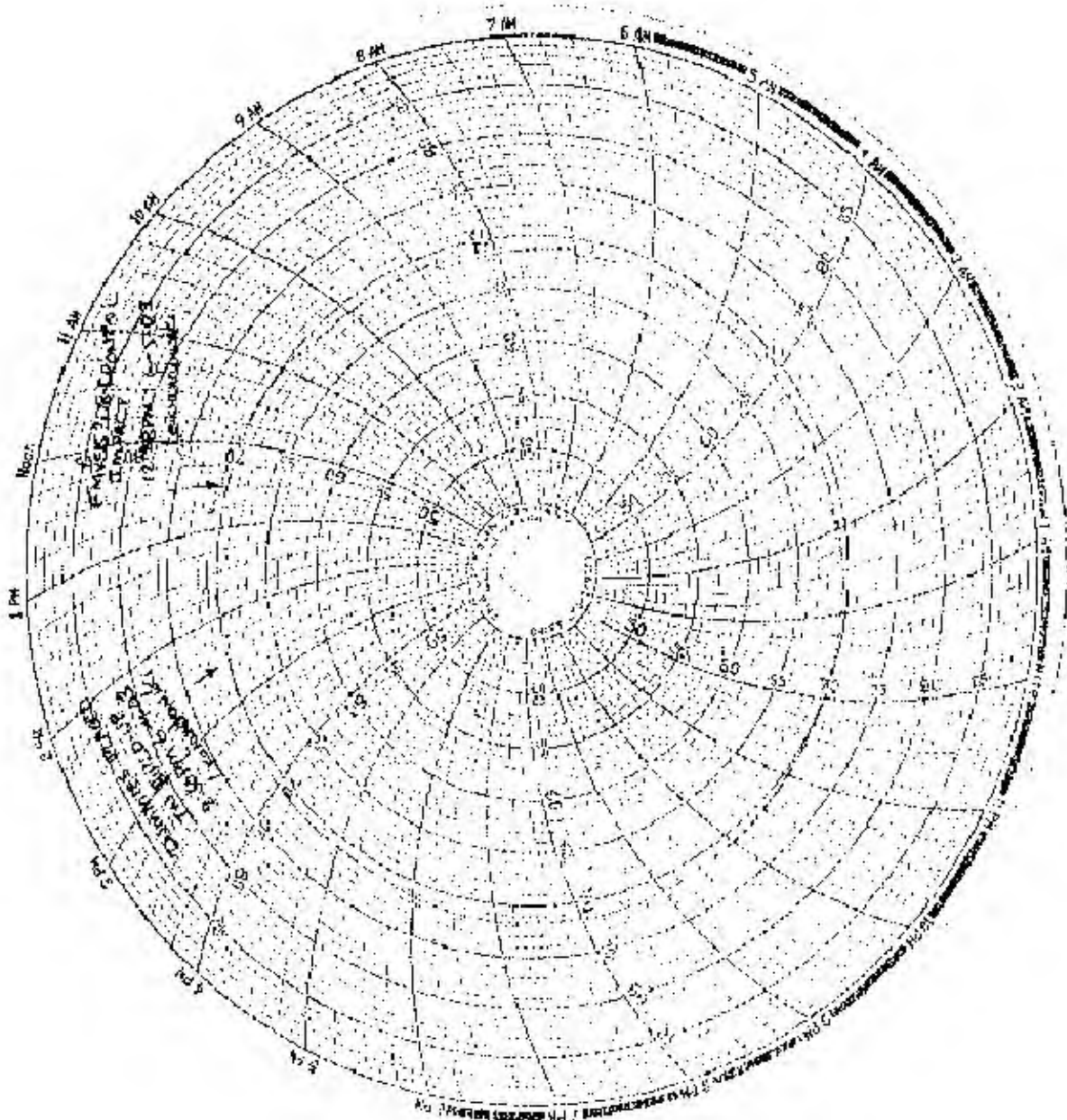












Temperature Plot

APPENDIX B

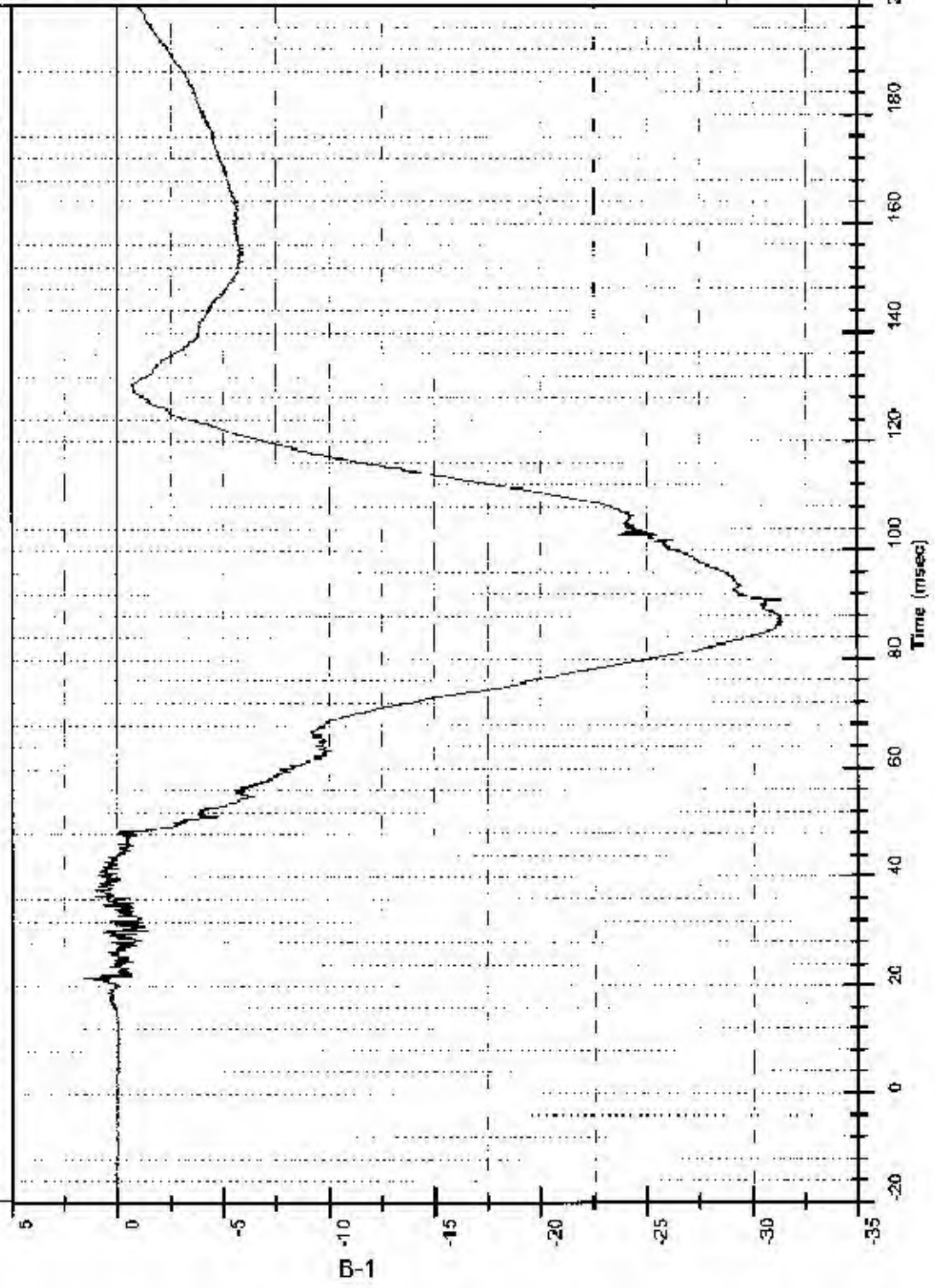
DUMMY AND VEHICLE RESPONSE DATA TRACES

TABLE OF DATA PLOTS

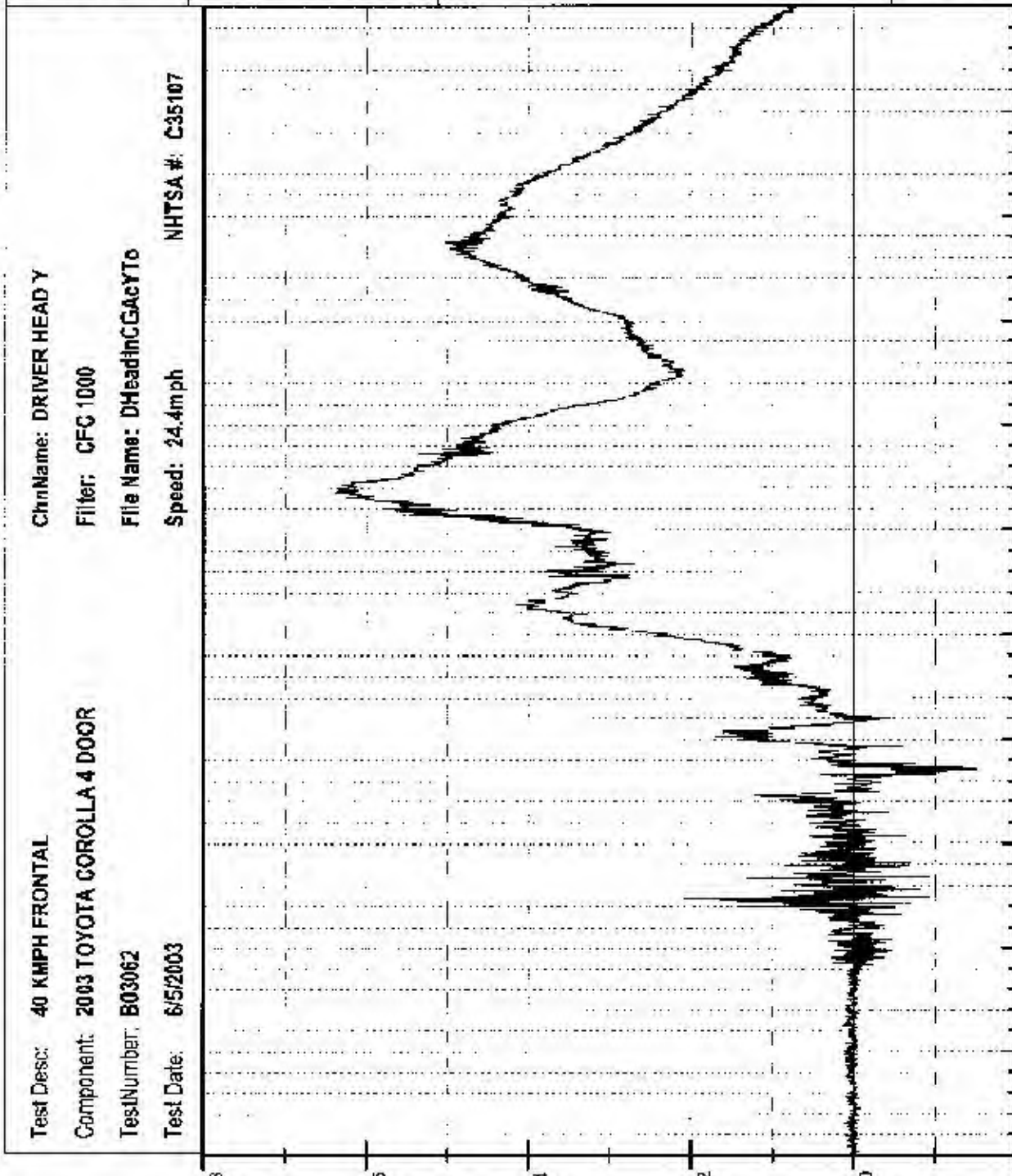
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Figure No. 2.	Driver Head Y Acceleration vs. Time	B-2
Figure No. 3.	Driver Head Z Acceleration vs. Time	B-3
Figure No. 4.	Driver Head Resultant Acceleration vs. Time	B-4
Figure No. 5.	Driver Neck Force X vs. Time	B-5
Figure No. 6.	Driver Neck Force Y vs. Time	B-6
Figure No. 7.	Driver Neck Force Z vs. Time	B-7
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Test Desc: 40 KM/PH FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR Test Number: B03052 Test Date: 6/5/2003	ChnName: DRIVER HEAD X Filter: GFC 1000 File Name: DHeadInCGAcXTo Speed: 24.4mph NHTSA #: C35107	MGA Research Corp 5000 Warren Road, Burlington, WI 53105 Ph #: 262-763-2705 Fax #: 262-763-0934	Maximum: 1.6 G's Time: 21.7 ms Minimum: -31.5 G's Time: 90.7 ms Value at T0: -0.0 G's	Plotted By: S. Agarwal On: 6/5/2003
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Test Desc: 40 KMPH FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR Test Number: B03062 Test Date: 6/5/2003	ChnName: DRIVER HEAD Y Filter: CFC 1000 File Name: DHeadInCGAcYTo Speed: 24.4mph NHTSA #: C-35107	MGA Research Corp 5000 Warren Road, Burlington, WI 53105 Ph #: 262-763-2705 Fax #: 262-763-0834
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Maximum: 6.5 G's Time: 107.4 ms	Minimum: -1.6 G's Time: 54.1 ms	Value at T0: 0.1 G's
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Plotted By: S. Agarwal On: 6/5/2003
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Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

TestNumber: B03062

Test Date: 6/5/2003

CrnName: DRIVER HEAD Z

Filter: CFC 1000

File Name: DHeadInCGAcZTo

Speed: 24.4mph NHTSA #: C35107

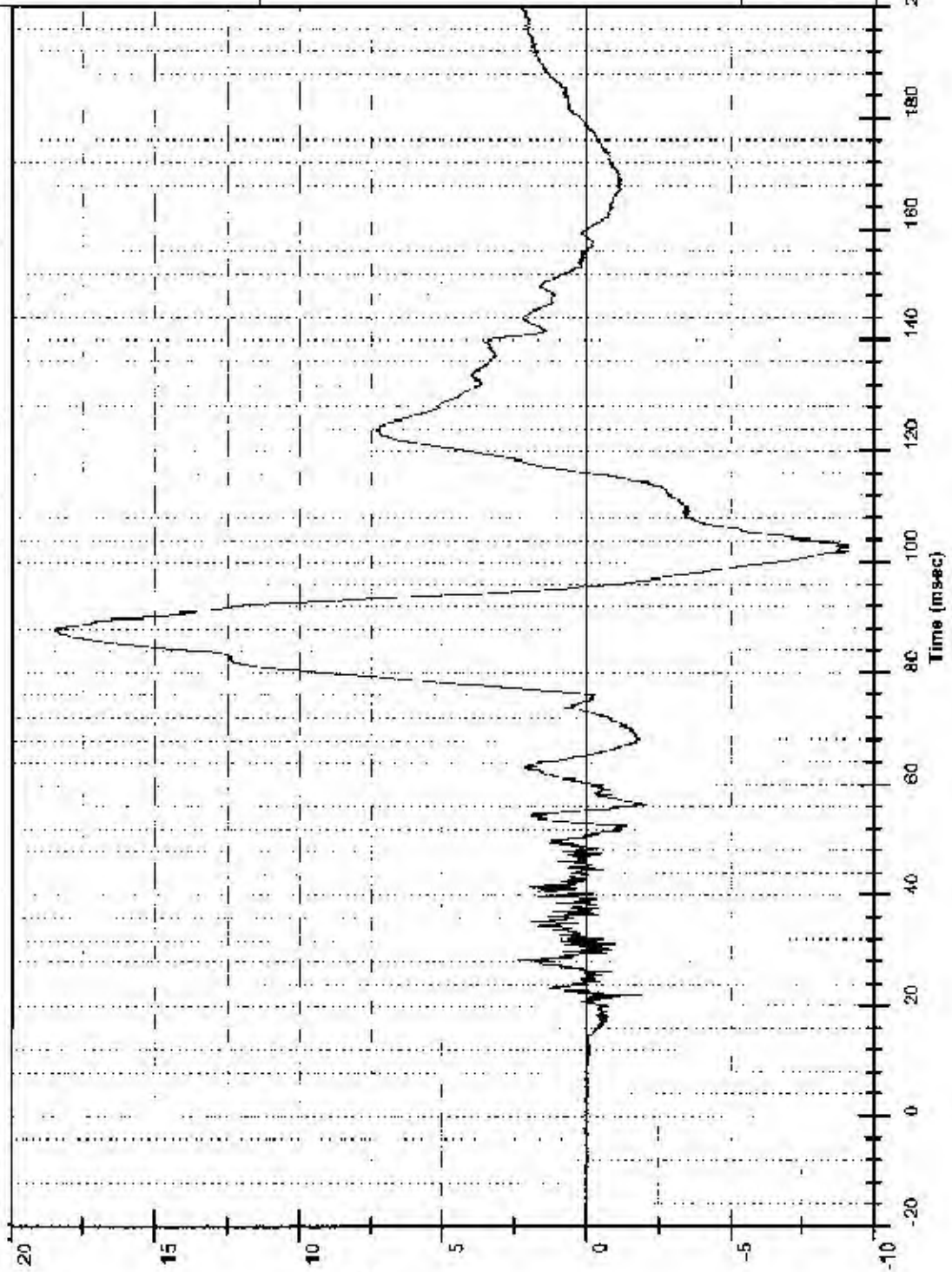
MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

Maximum: 18.5 G's
Time: 87.7 ms

Minimum: -9.1 G's
Time: 102.8 ms

Value at T0: -0.0 G's

Plotted By: S. Agarwal
On: 6/5/2003



Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

Test Number: B03062

Test Date: 6/5/2003

ChnName: DRIVER HEAD Resultant

Filter: CFC 1000

File Name: DHeadInCGAcRTo

Speed: 24.4mph

NHTSA #: C35107

MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

Maximum: 36.6 G's

Time: 87.7 ms

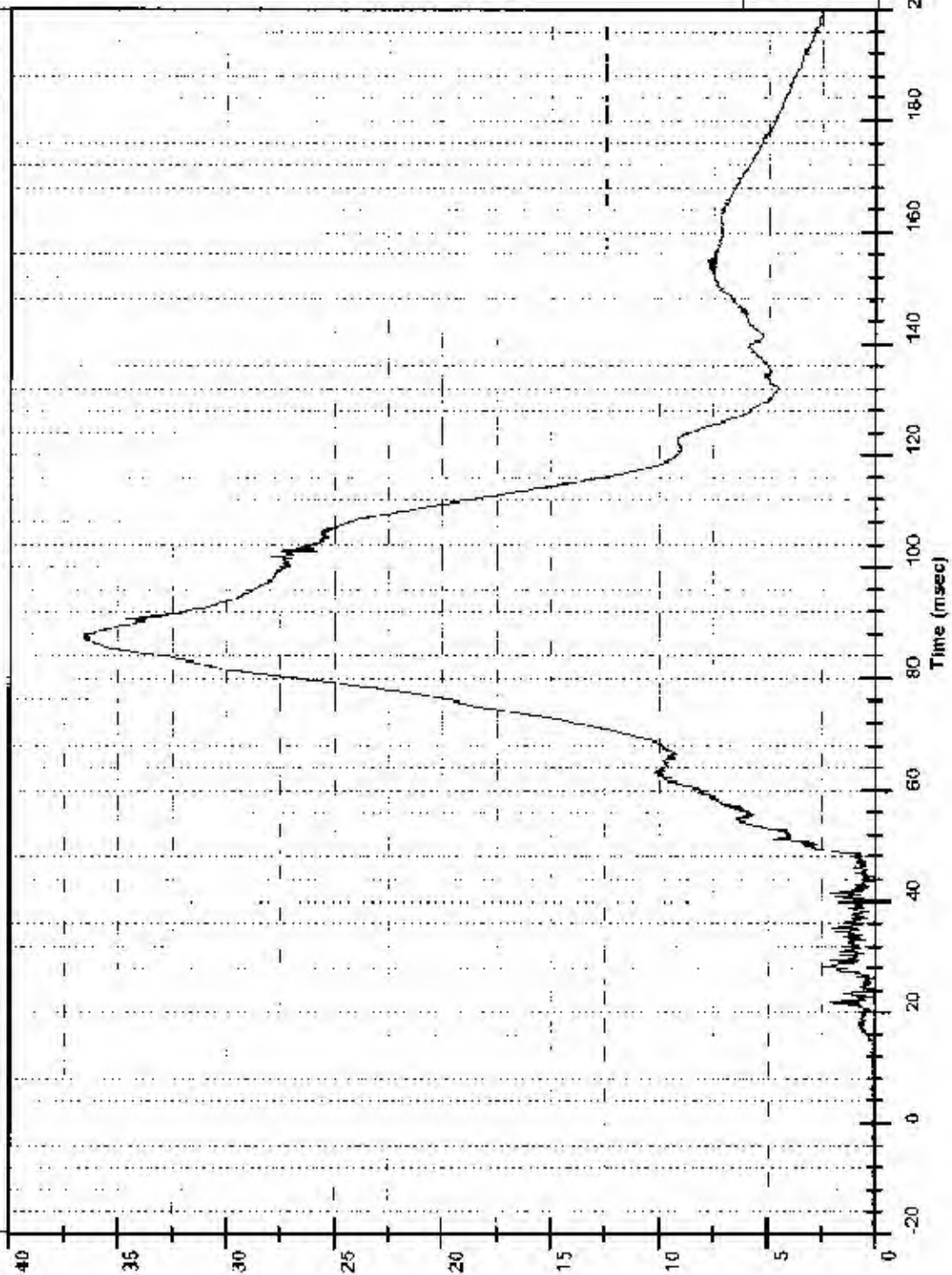
Minimum: 0.0 G's

Time: 2.8 ms

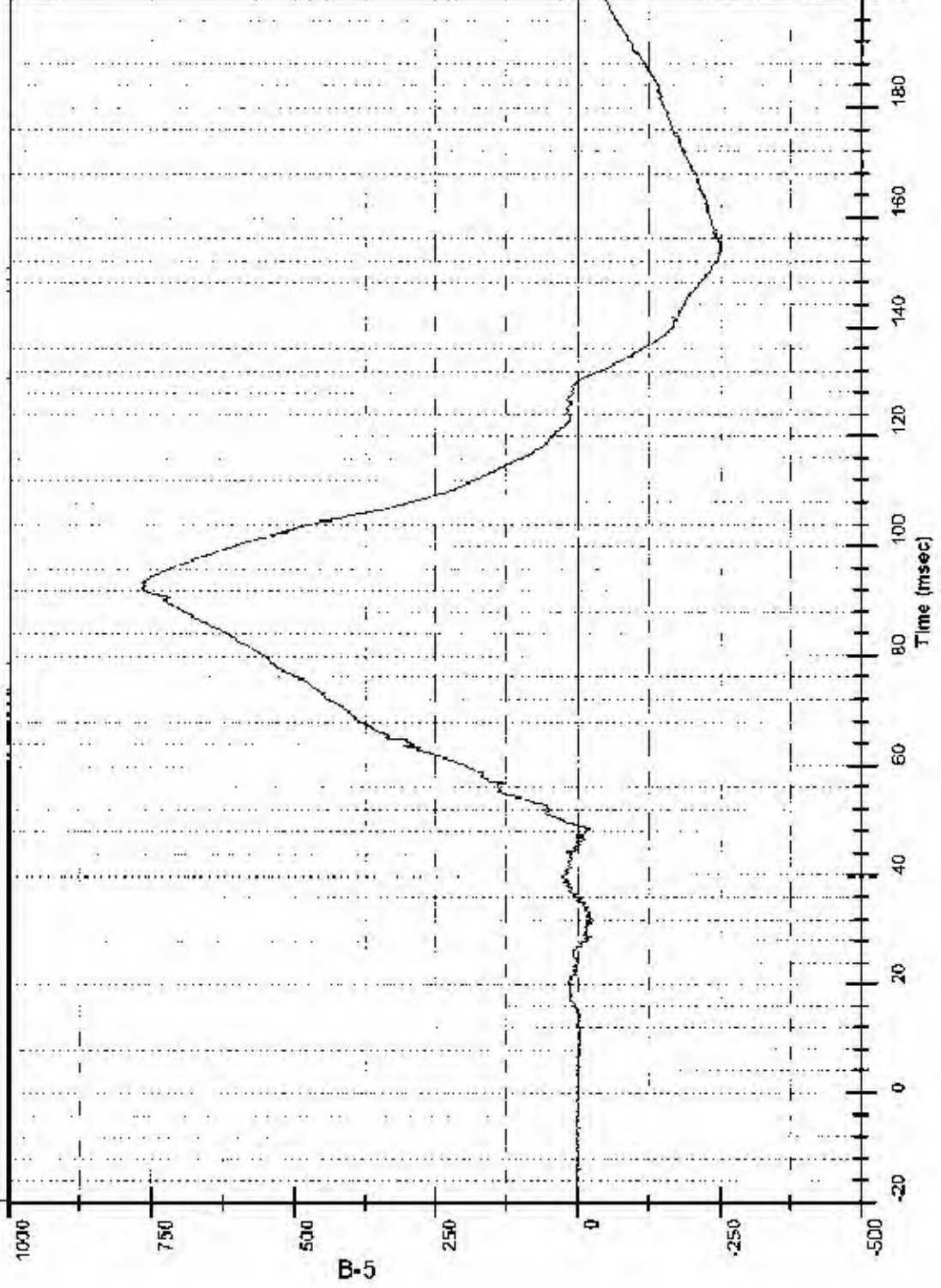
Value at T0: 0.1 G's

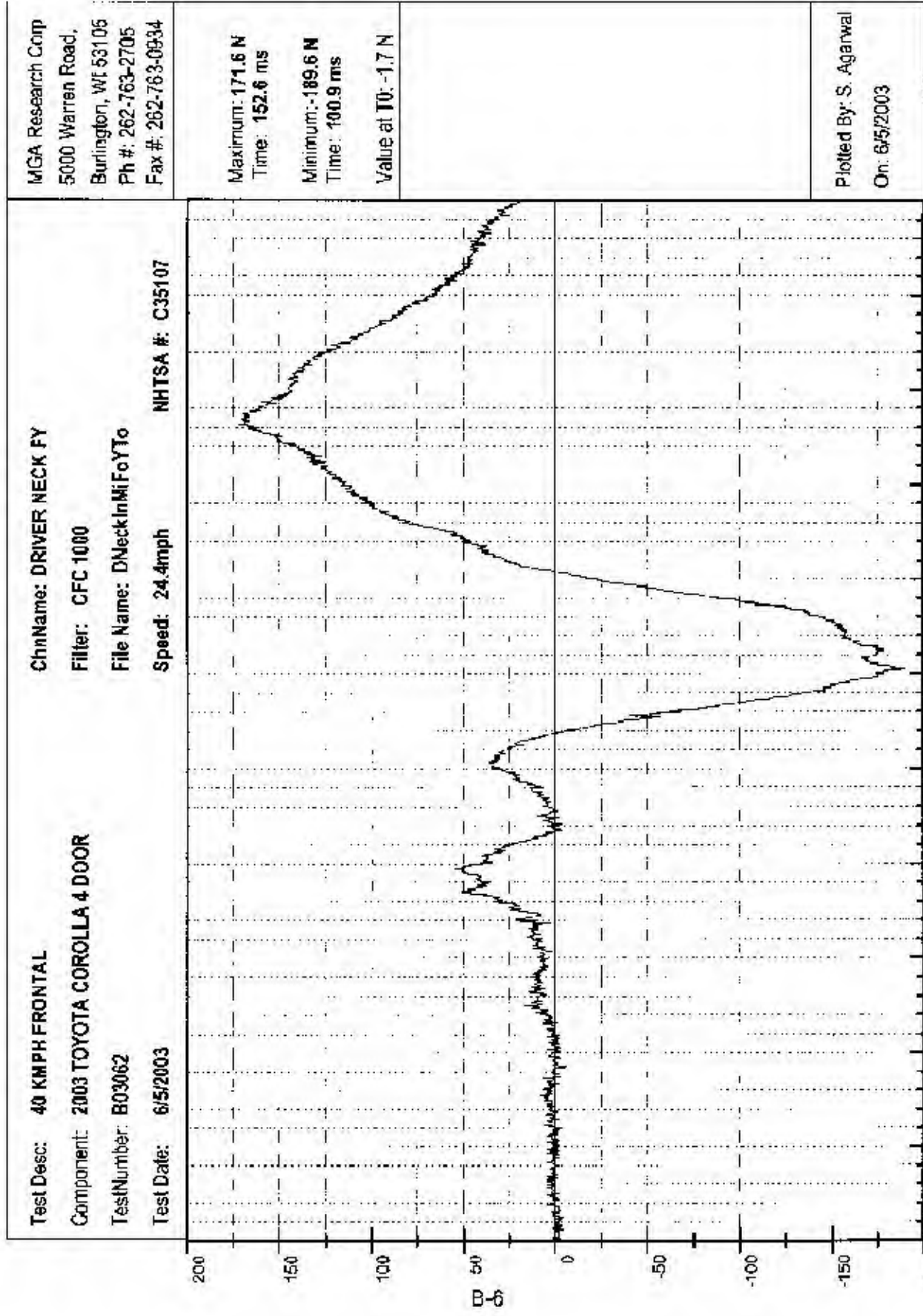
Plotted By: S. Agarwal

On: 6/5/2003



Test Desc: 40 KMPH FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR Test Number: B03062 Test Date: 6/5/2003	ChnName: DRIVER NECK.FX Filter: CFC 1000 File Name: DNeckInMiFoXTo Speed: 24.4mph NHTSA #: C35107	MGA Research Corp 5000 Warren Road, Burlington, WI 53105 Ph #: 262-763-2705 Fax #: 262-763-0934
Maximum: 768.9 N Time: 92.3 ms Minimum: -251.9 N Time: 154.3 ms Value at T0: -0.4 N		Plotted By: S. Agarwal On: 6/5/2003





Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

Test Number: B03062

Test Date: 6/5/2003

ChnName: DRIVER NECK FZ

Filter: CFC 1000

File Name: DNeckInMIF-oZTo

Speed: 24.4mph NHTSA #: C35107

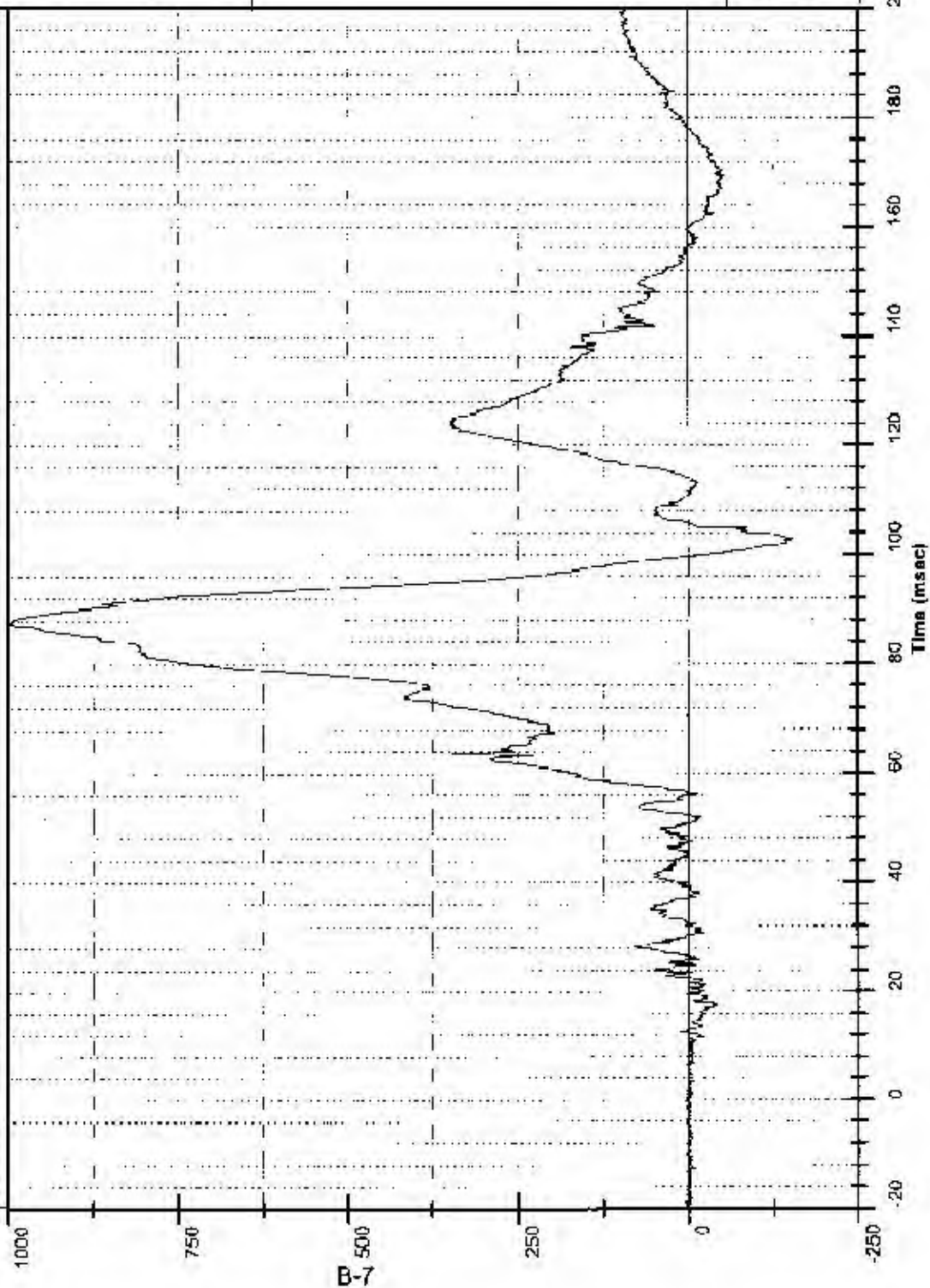
MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

Maximum: 999.1 N
Time: 87.3 ms

Minimum: -153.0 N
Time: 102.8 ms

Value at T0: 0.1 N

Plotted By: S. Agarwal
On: 6/5/2003



Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

Test Number: B03062

Test Date: 6/5/2003

ChnName: DRIVER NECK MX

Filter: CFC 600

File Name: DNeckInMiMoXBo

Speed: 24.4mph NHTSA #: C35107

MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

Maximum: 14.4 Nm

Time: 142.2 ms

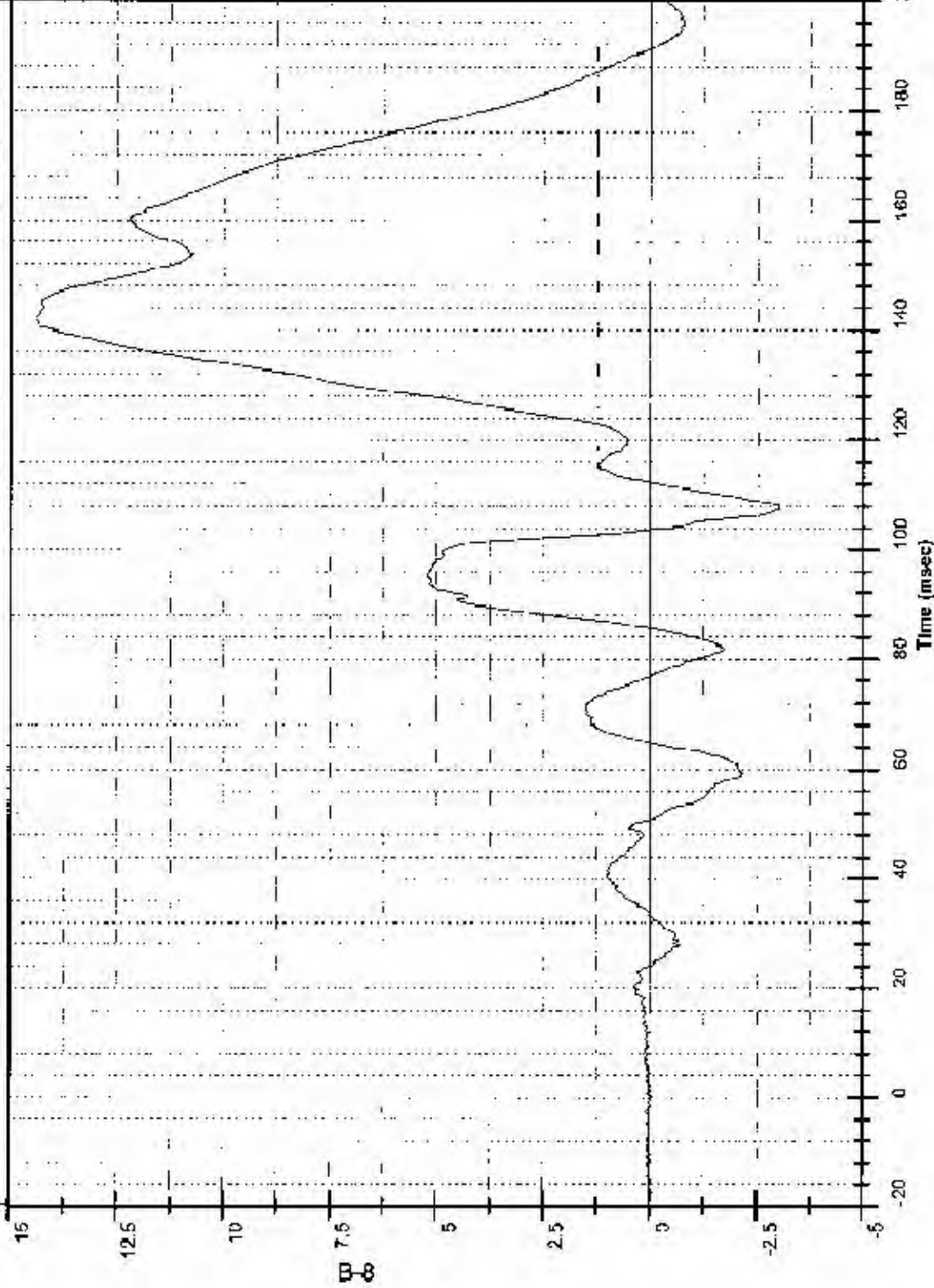
Minimum: -3.0 Nm

Time: 107.6 ms

Value at T0: -0.0 Nm

Plotted By: S. Agarwal

On: 6/5/2003



Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

Test Number: 803062

Test Date: 6/5/2003

ChnName: DRIVER NECK MY

Filter: CFC 600

File Name: DNeckInMiMoYBo

Speed: 24.4mph NHTSA #: C35107

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Fax #: 262-763-0934

Maximum: 44.6 Nm

Time: 92.0 ms

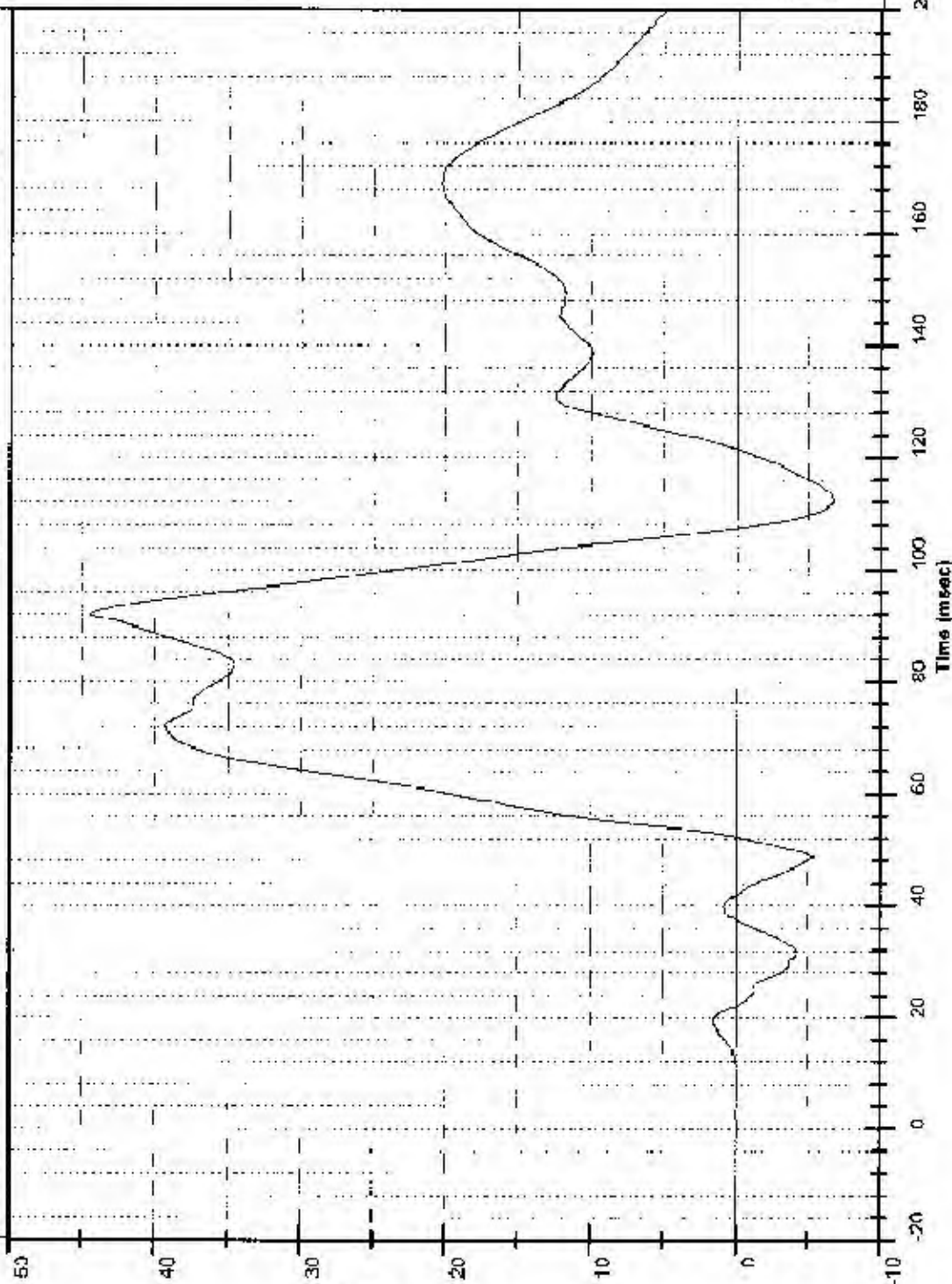
Minimum: -6.8 Nm

Time: 112.3 ms

Value at T0: 0.0 Nm

Plotted By: S. Agarwal

On: 6/5/2003

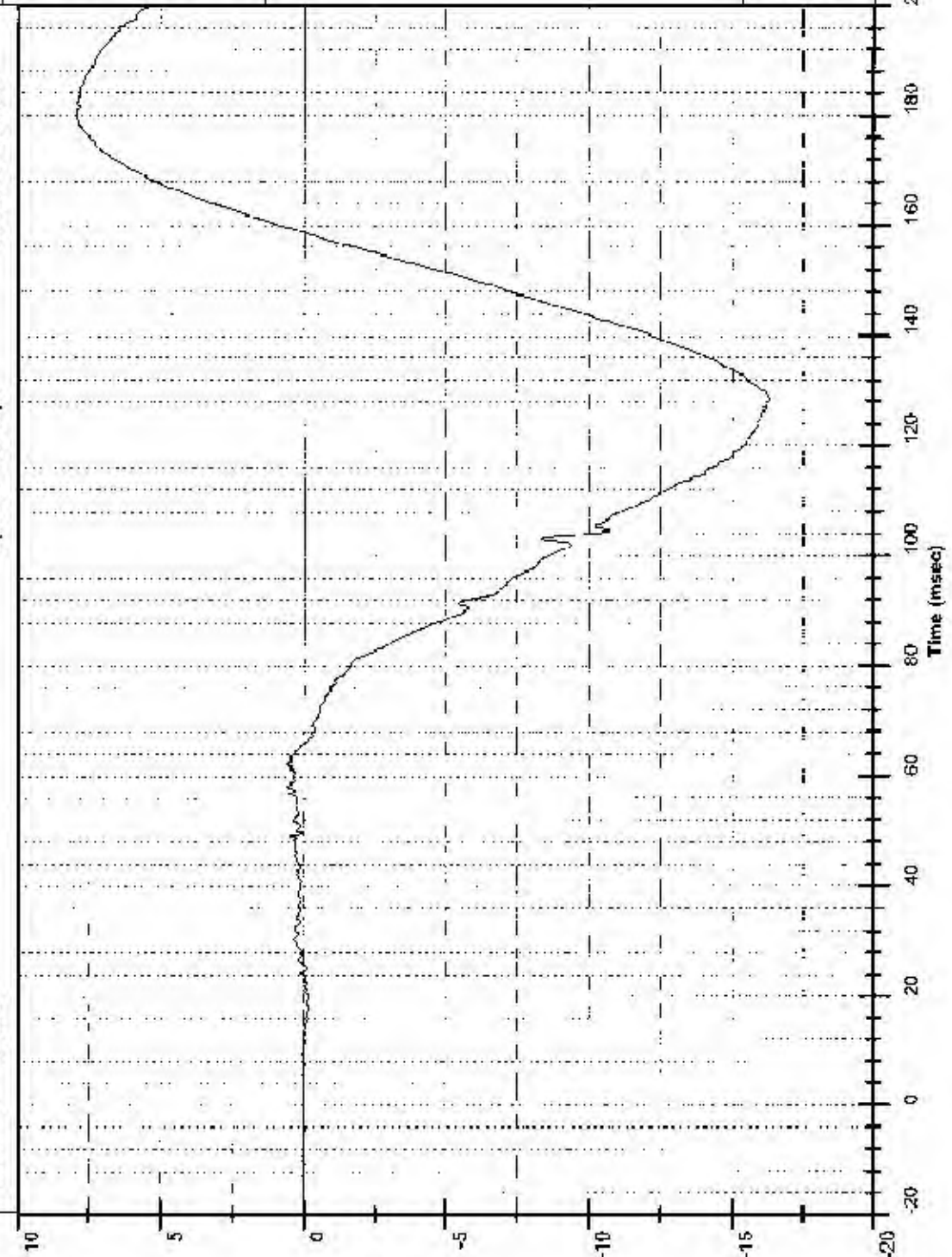


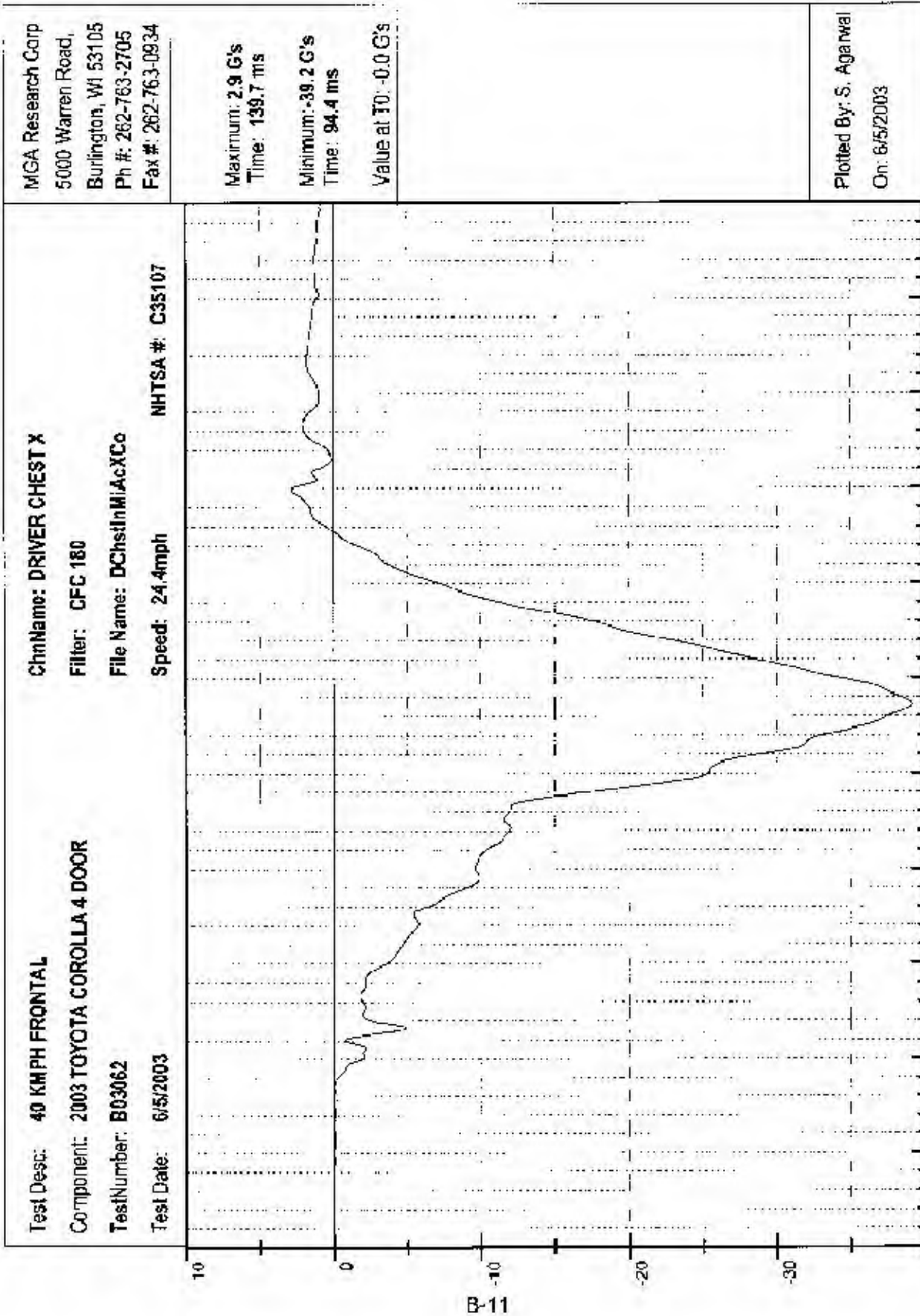
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: 803062
Test Date: 6/5/2003

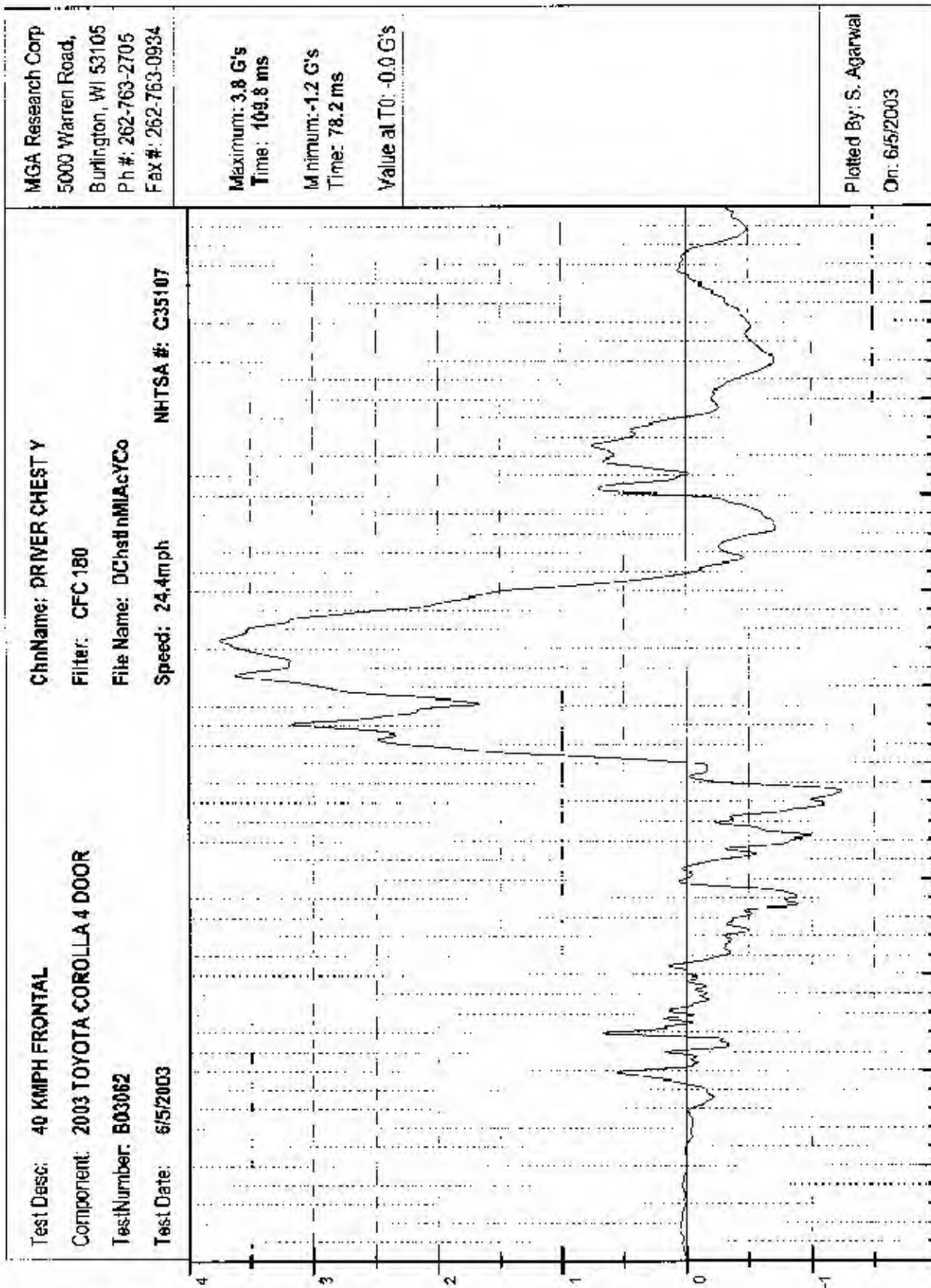
ChnName: DRIVER NECK MZ
Filter: CFC 600
File Name: DNeckInMiMoZBo
Speed: 24.4mph
NHTSA #: C35107

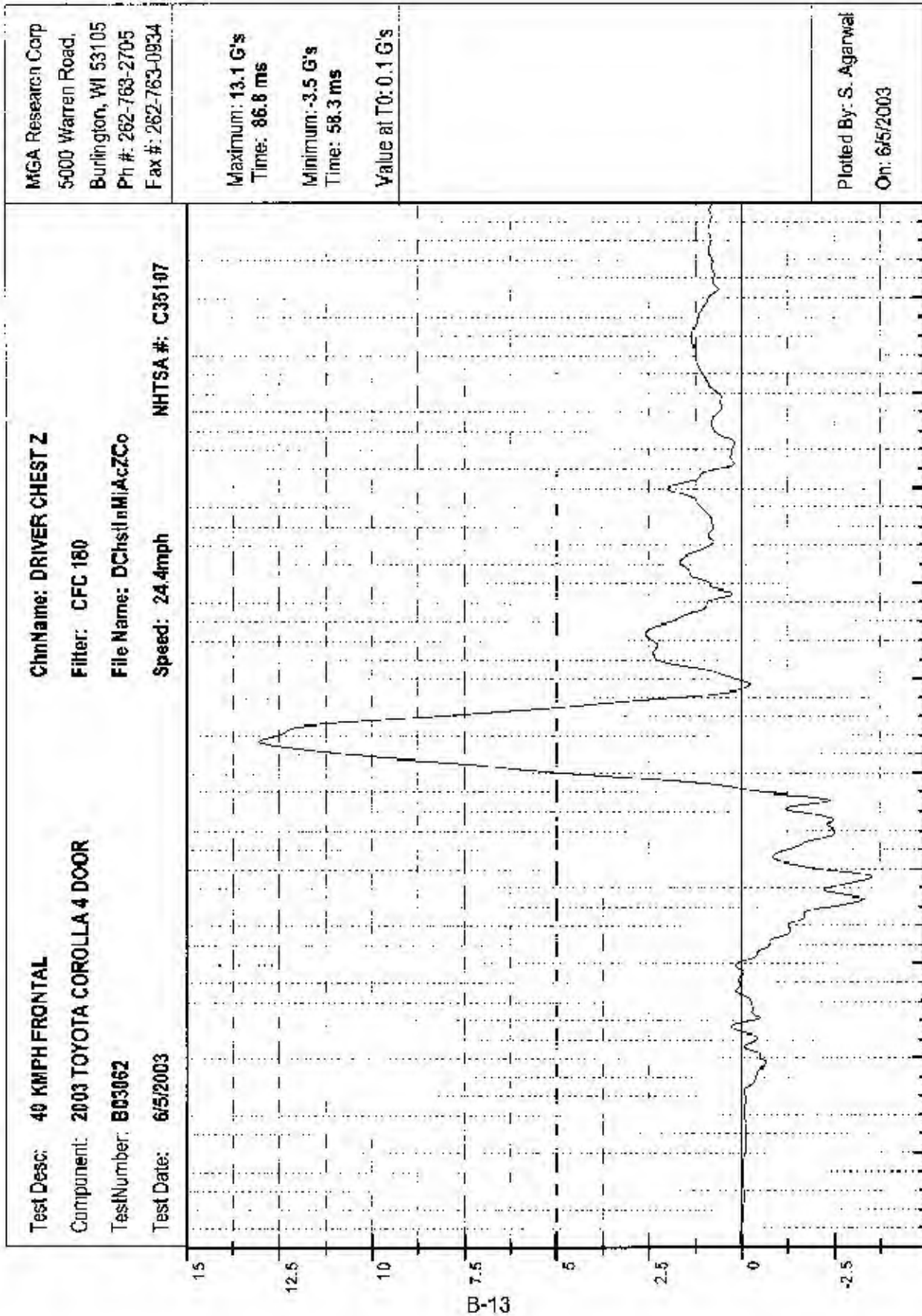
Maximum: 7.9 Nm
Time: 180.3 ms
Minimum: -15.3 Nm
Time: 128.3 ms
Value at T0: 0.1 Nm

Plotted By: S. Agarwal
On: 6/5/2003









Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

Test Number: B03062

Test Date: 6/5/2003

ChnName: DRIVER CHEST Resultant

Filter: CFC 180

File Name: DChstInMIACRCo

Speed: 24.4mph NHTSA #: C35107

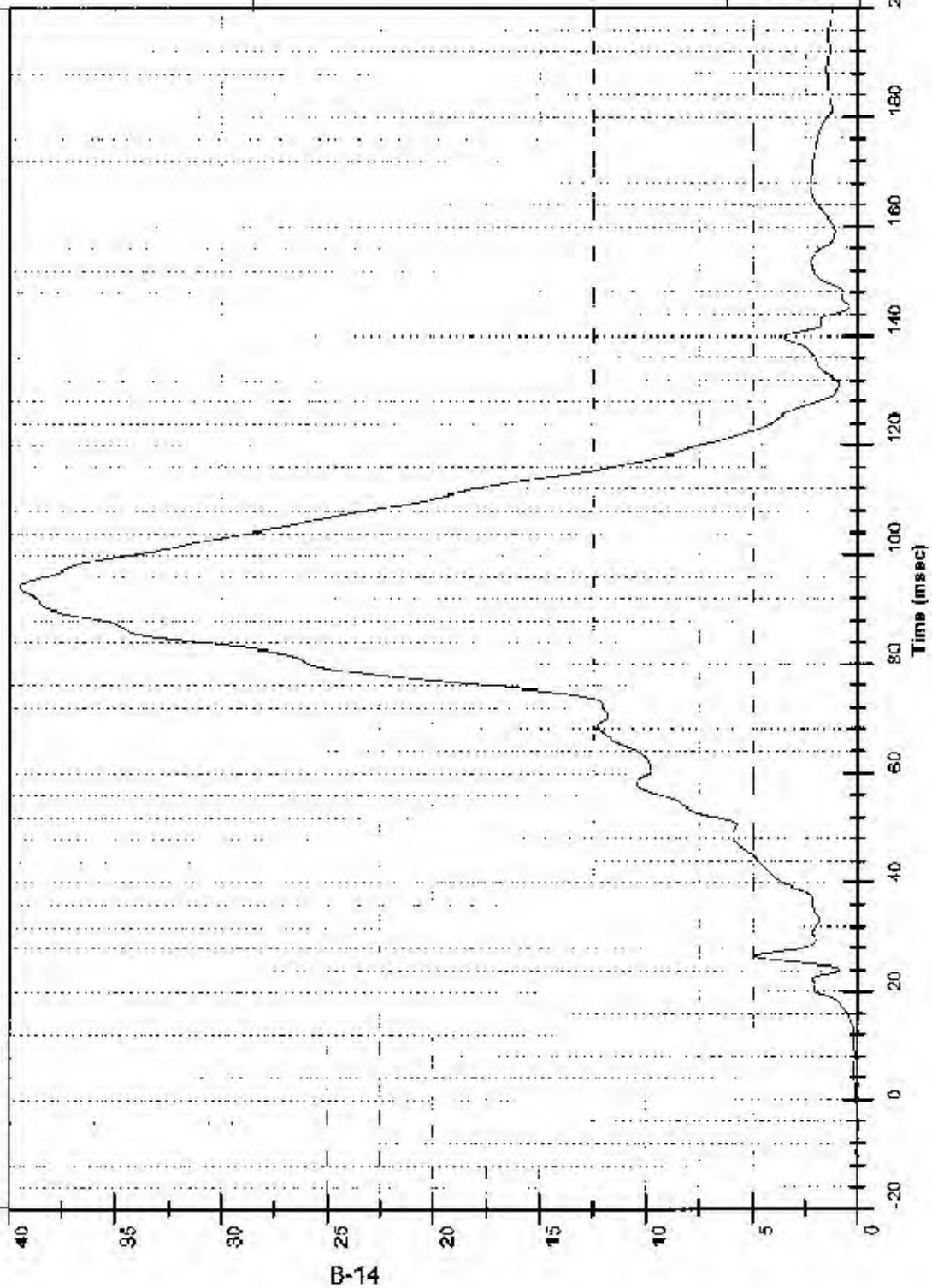
MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

Maximum: 39.5 G's
Time: 94.2 ms

Minimum: 0.0 G's
Time: -6.4 ms

Value at T0: 0.1 G's

Plotted By: S. Agarwal
On: 6/5/2003



Test Desc: 40 KM/H FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

Test Number: B03062

Test Date: 6/5/2003

ChnName: DRIVER CHEST DISPLACEMENT

Filter: CFG 600

File Name: DChstInMID.sXBC

Speed: 24.4mph

NHTSA #: C35107

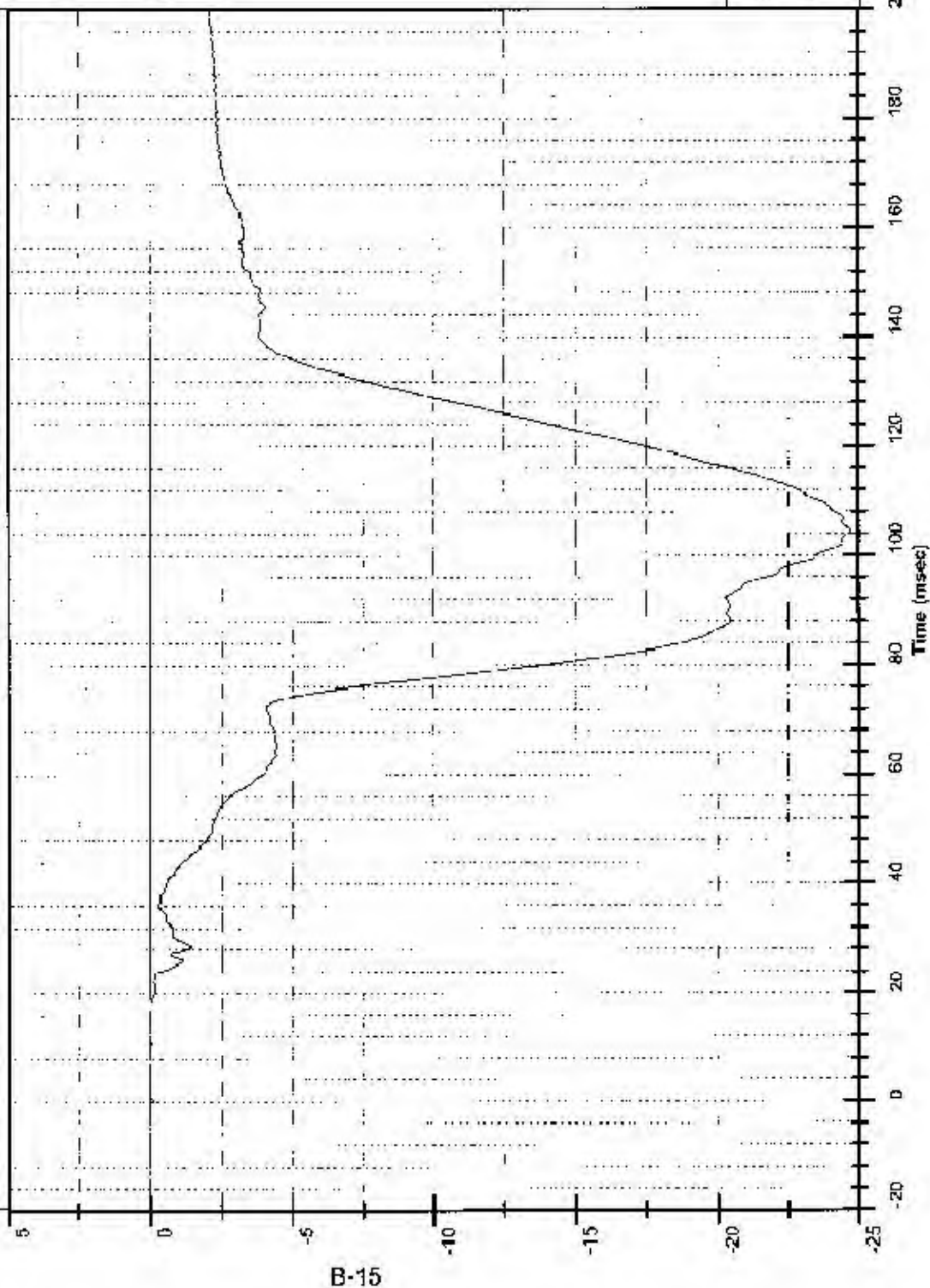
MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

Maximum: 0.0 mm
Time: 1.1 ms

Minimum: -24.7 mm
Time: 104.5 ms

Value at T0: -0.0 mm

Plotted By: S. Agarwal
On: 6/5/2003



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ChnName: DRIVER LEFT FEMUR

Filter: CFC 600

File Name: DFemrLeMiFoXBo

Speed: 24.4mph NHTSA #: C35107

Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

TestNumber: B03052

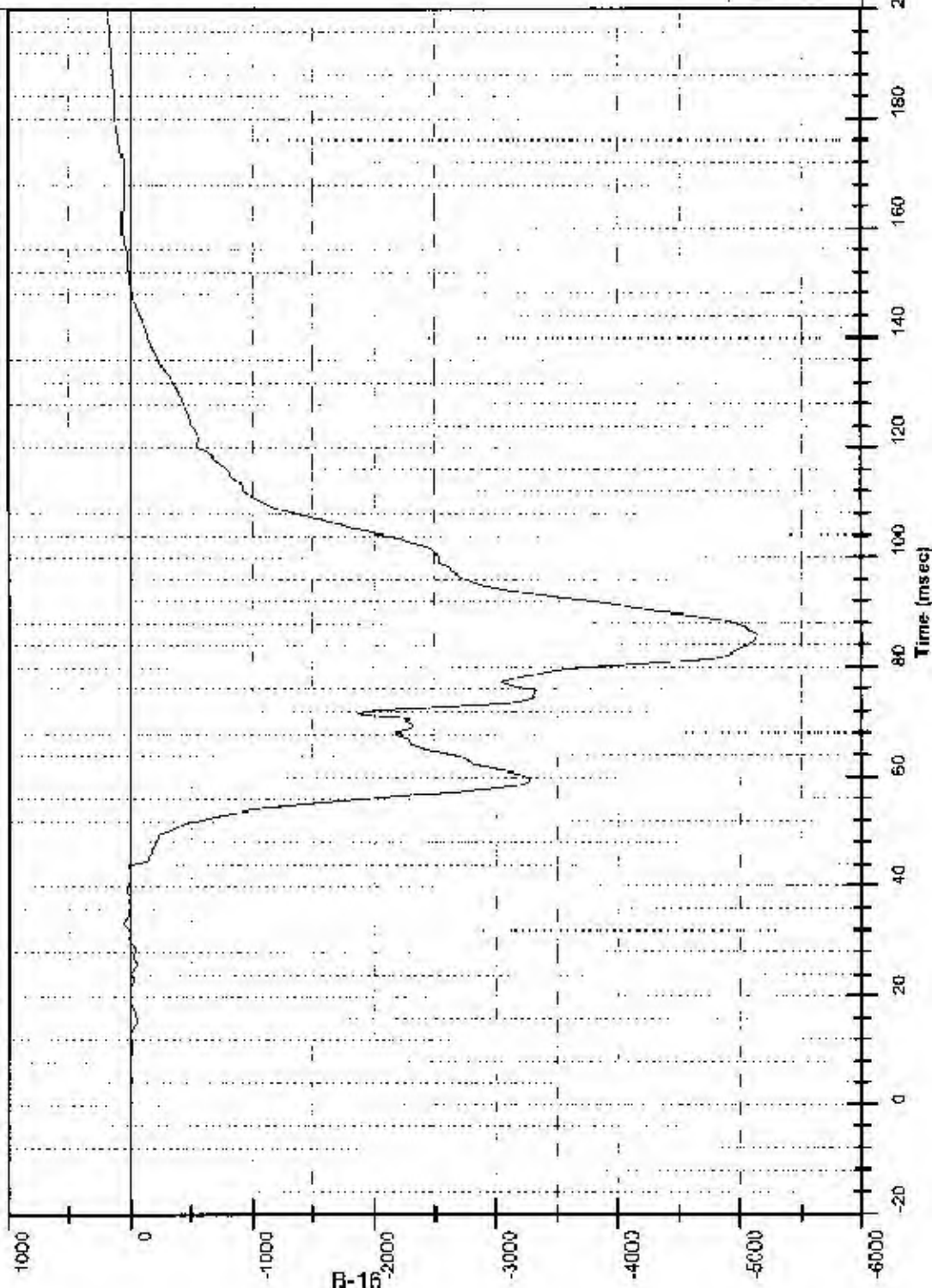
Test Date: 6/5/2003

Maximum: 176.5 N
Time: 198.9 ms

Minimum: -5,129.8 N
Time: 85.8 ms

Value at T0: -0.0 N

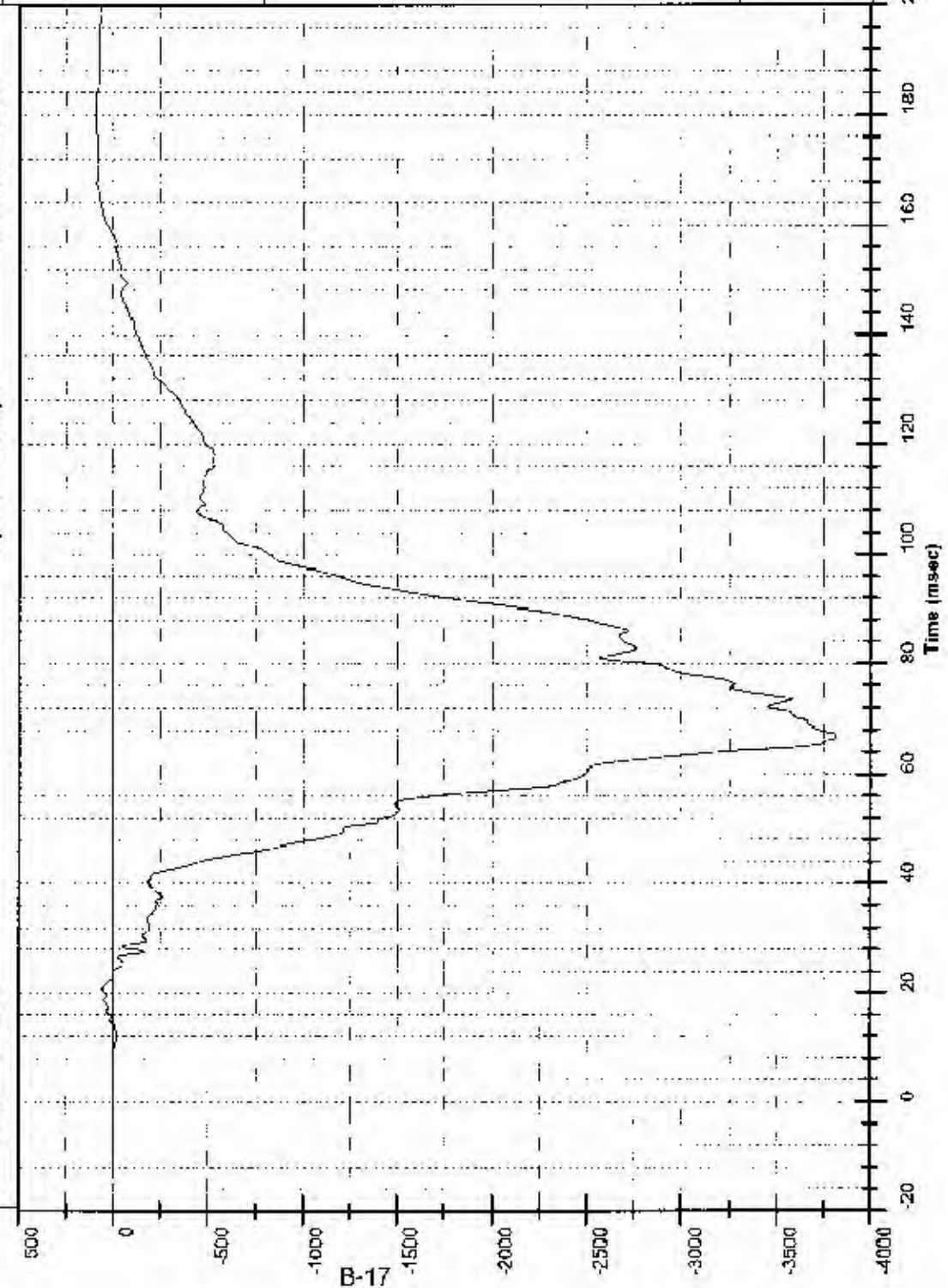
Plotted By: S. Agarwal
On: 6/5/2003

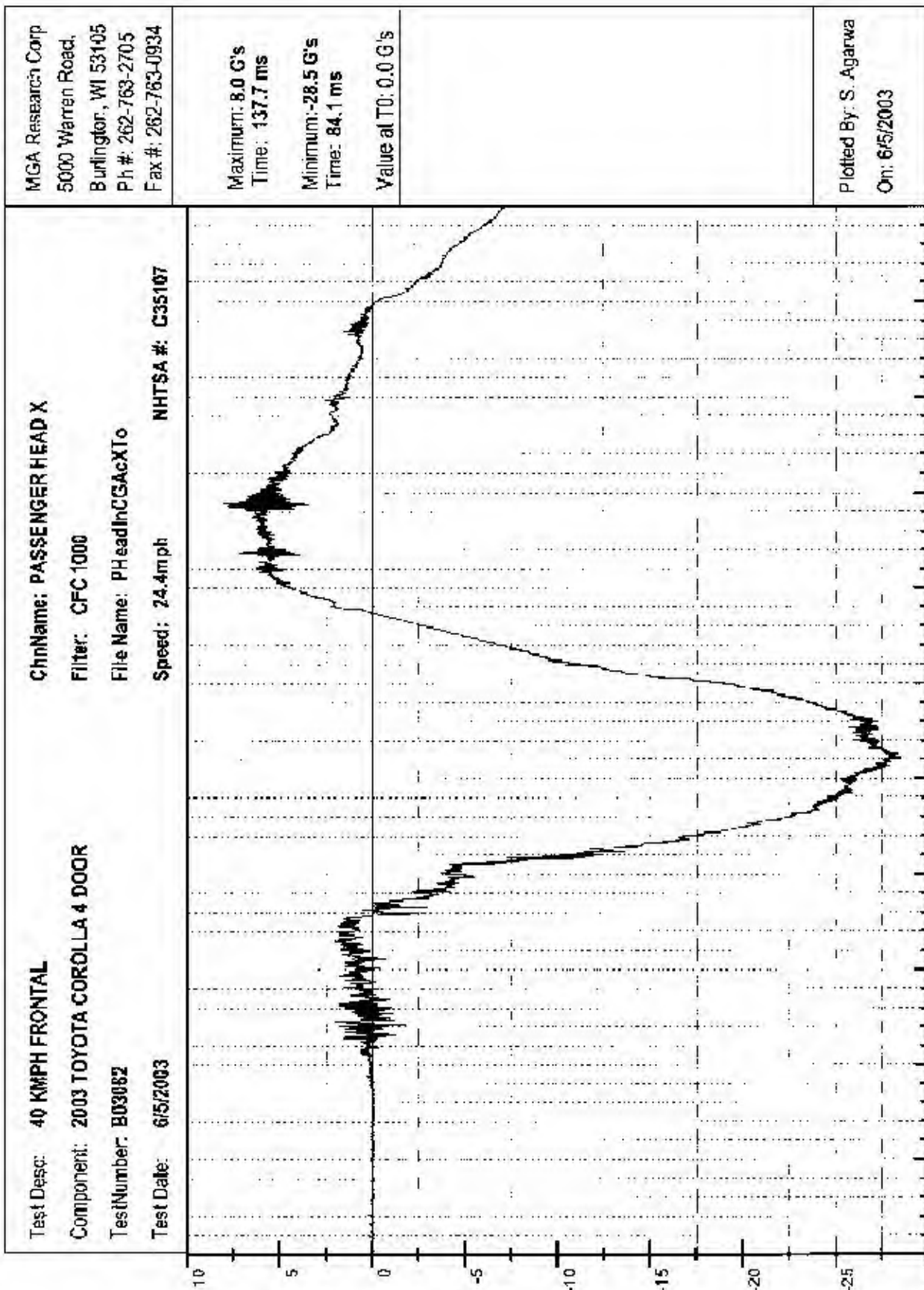


Test Desc: 40 KMPH FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR TestNumber: B03062 Test Date: 6/5/2003	ChnName: DRIVER RIGHT FEMUR Filter: CFC 600 File Name: DFemrRIMiFoXBo Speed: 24.4mph NHTSA #: C35107	MGA Research Corp 5000 Warren Road, Burlington, WI 53105 Ph #: 262-763-2705 Fax #: 262-763-0934
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Maximum: 100.1 N Time: 182.0 ms Minimum: -3,822.0 N Time: 66.5 ms Value at T0: 0.6 N

Plotted By: S. Agarwal
 On: 6/5/2003





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Fax #: 262-763-0934

ChnName: PASSENGER HEAD Y

Filter: CFC 1000

File Name: PHeadInCGAcYTo

Speed: 24.4mph NHTSA #: C35107

Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

Test Number: B03062

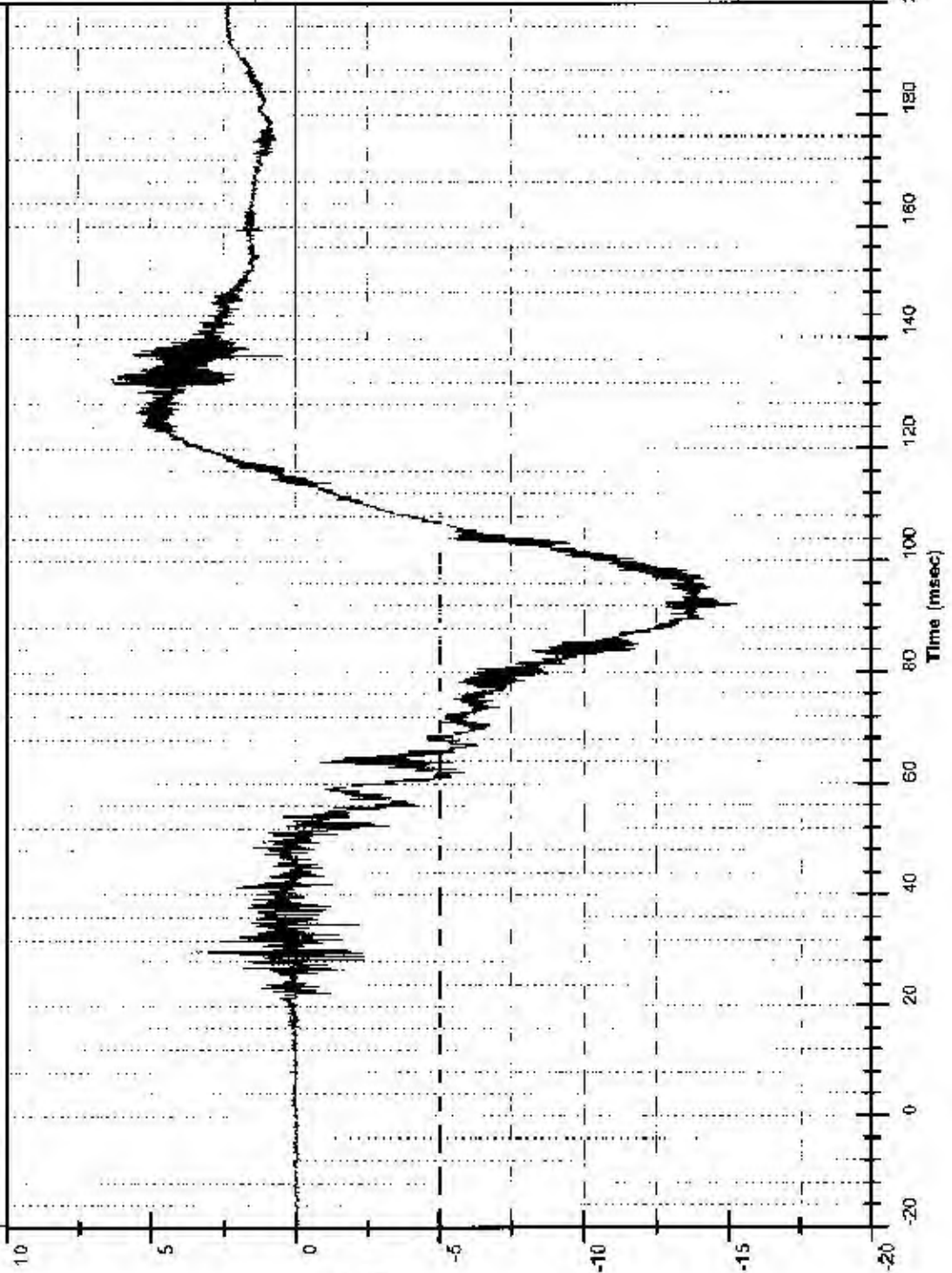
Test Date: 6/5/2003

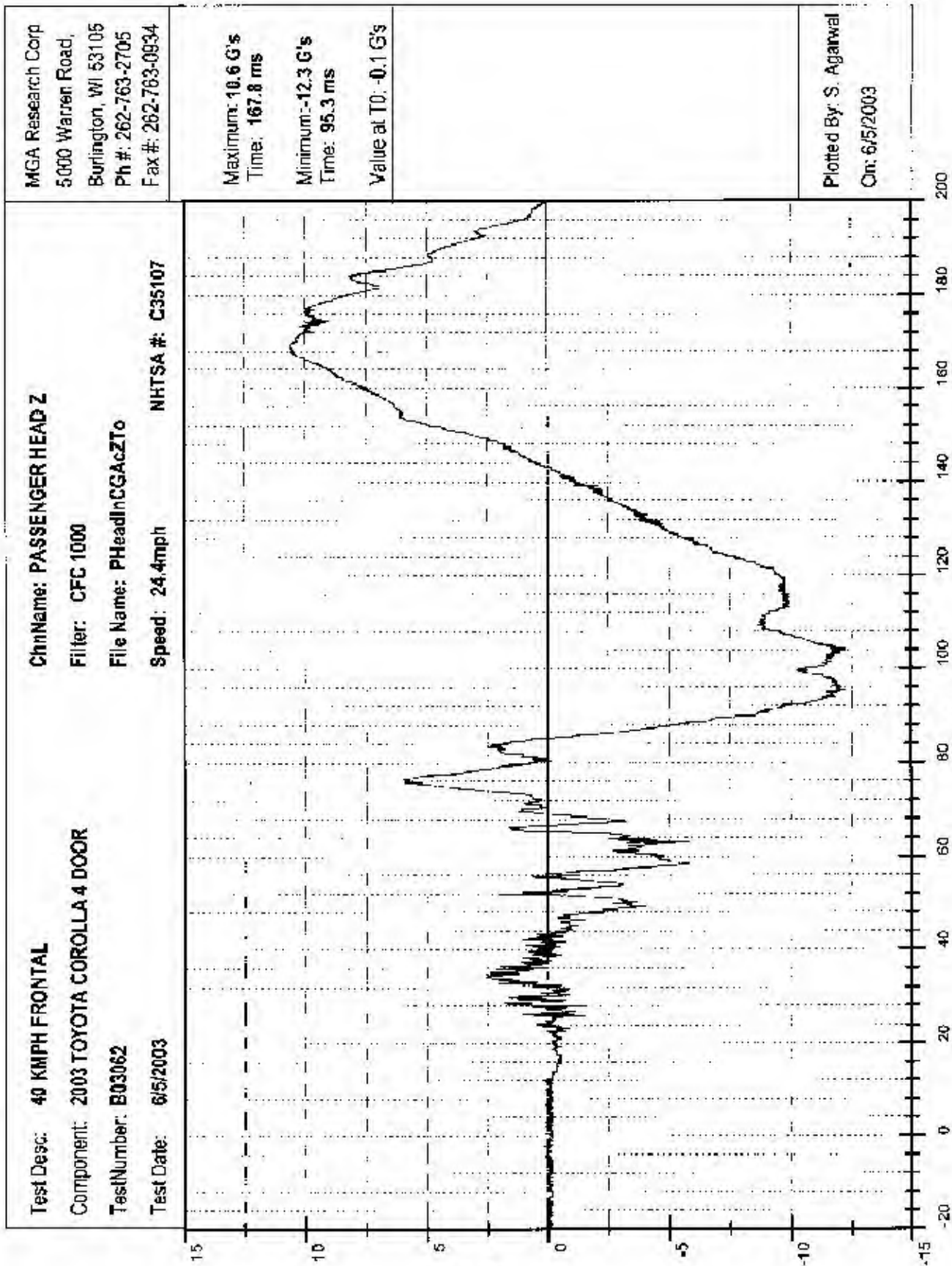
Maximum: 6.4 G's
Time: 132.6 ms

Minimum: -15.3 G's
Time: 92.3 ms

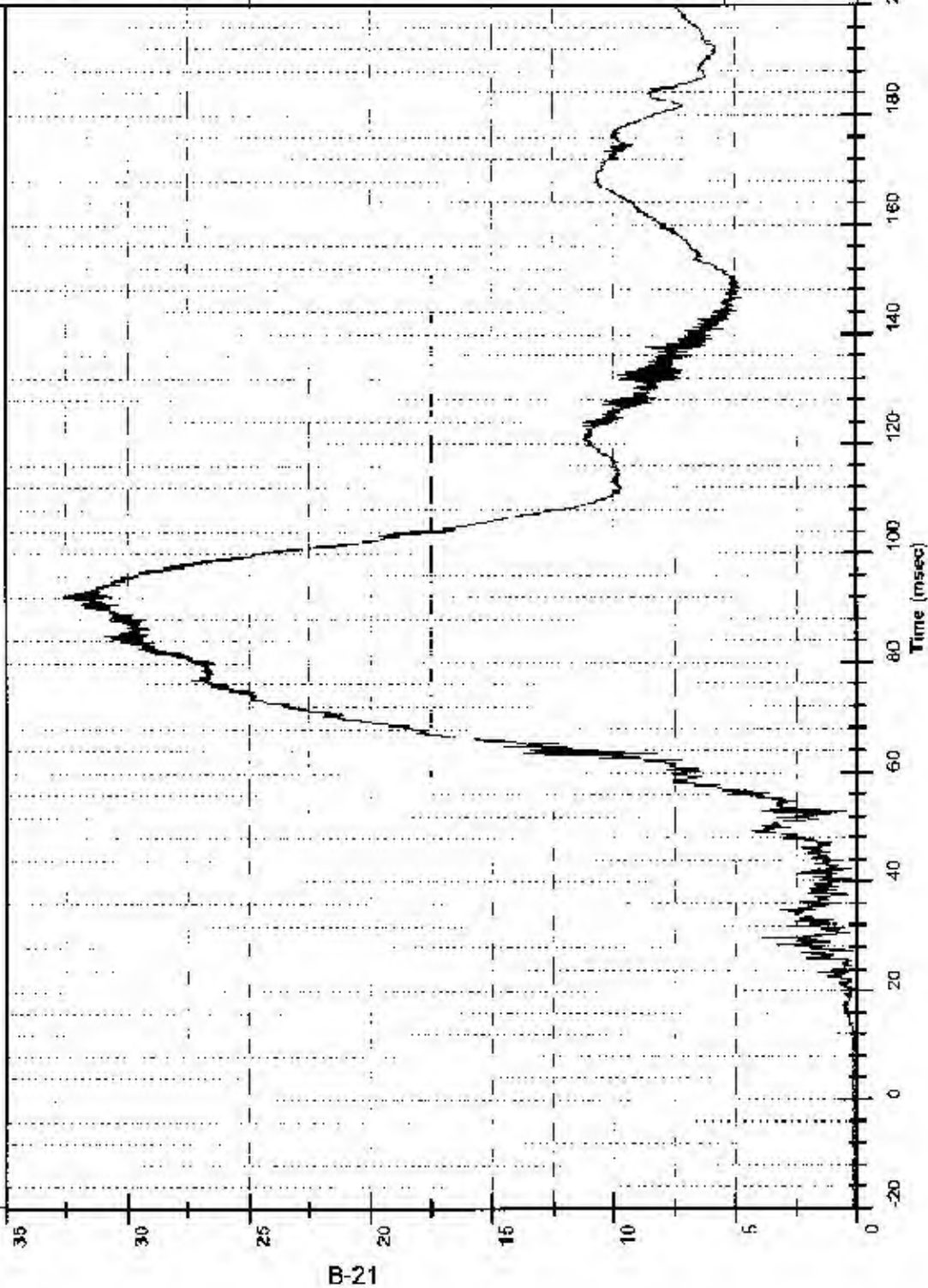
Value at T0: -0.1 G's

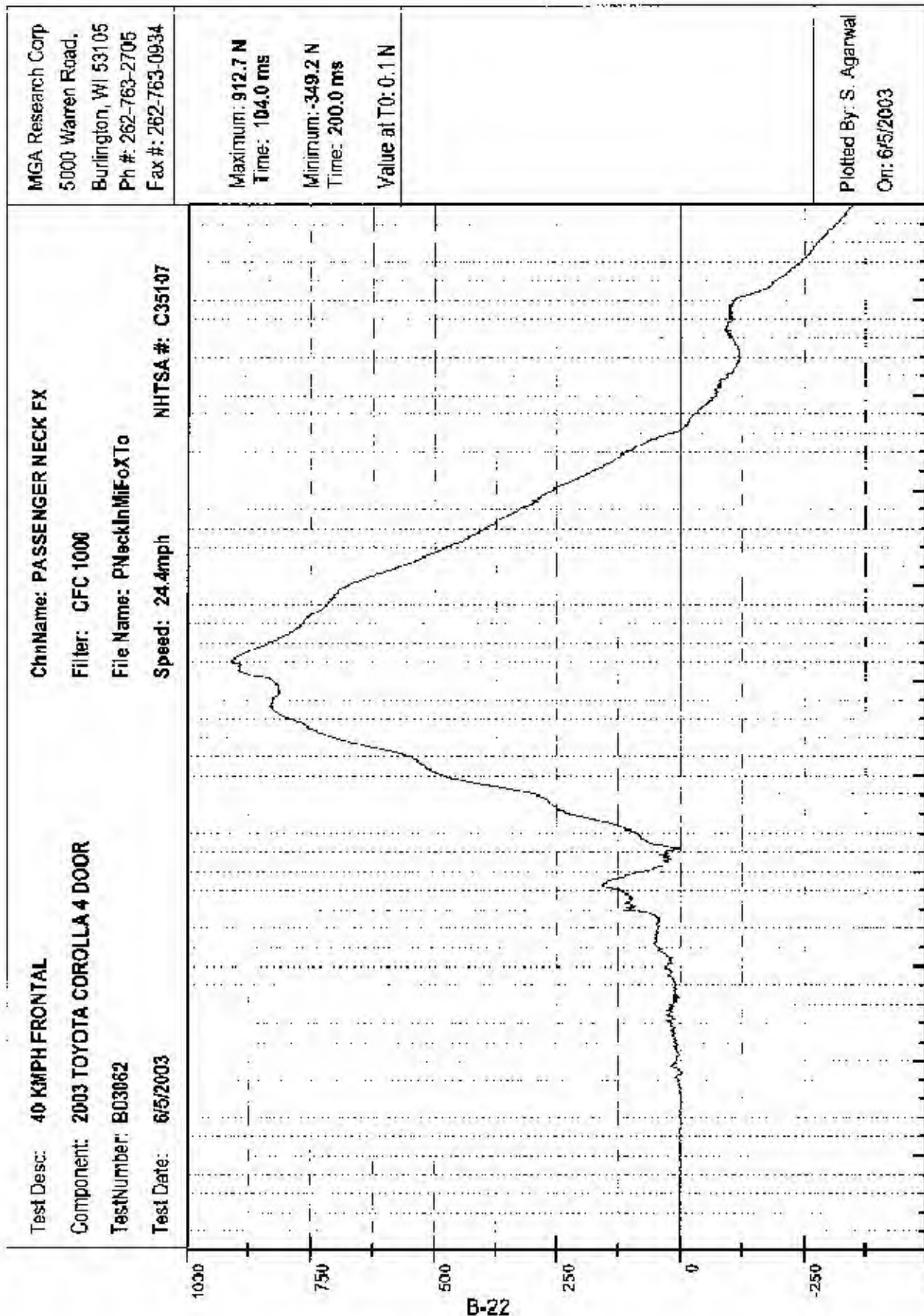
Plotted By: S. Agarwal
On: 6/5/2003





Test Desc: 40 KM/H FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR Test Number: B03062 Test Date: 6/5/2003	ChnName: PASSENGER HEAD Resultant Filter: CFC 1000 File Name: PHeadInCGAcRTo Speed: 24.4mph NHTSA #: C35107	MGA Research Corp 5000 Warren Road, Burlington, WI 53105 Ph #: 262-763-2705 Fax #: 262-763-0934
Maximum: 32.6 G's Time: 91.9 ms Minimum: 0.0 G's Time: -14.7 ms Value at T0: 0.2 G's		Plotted By: S. Agarwal On: 6/5/2003





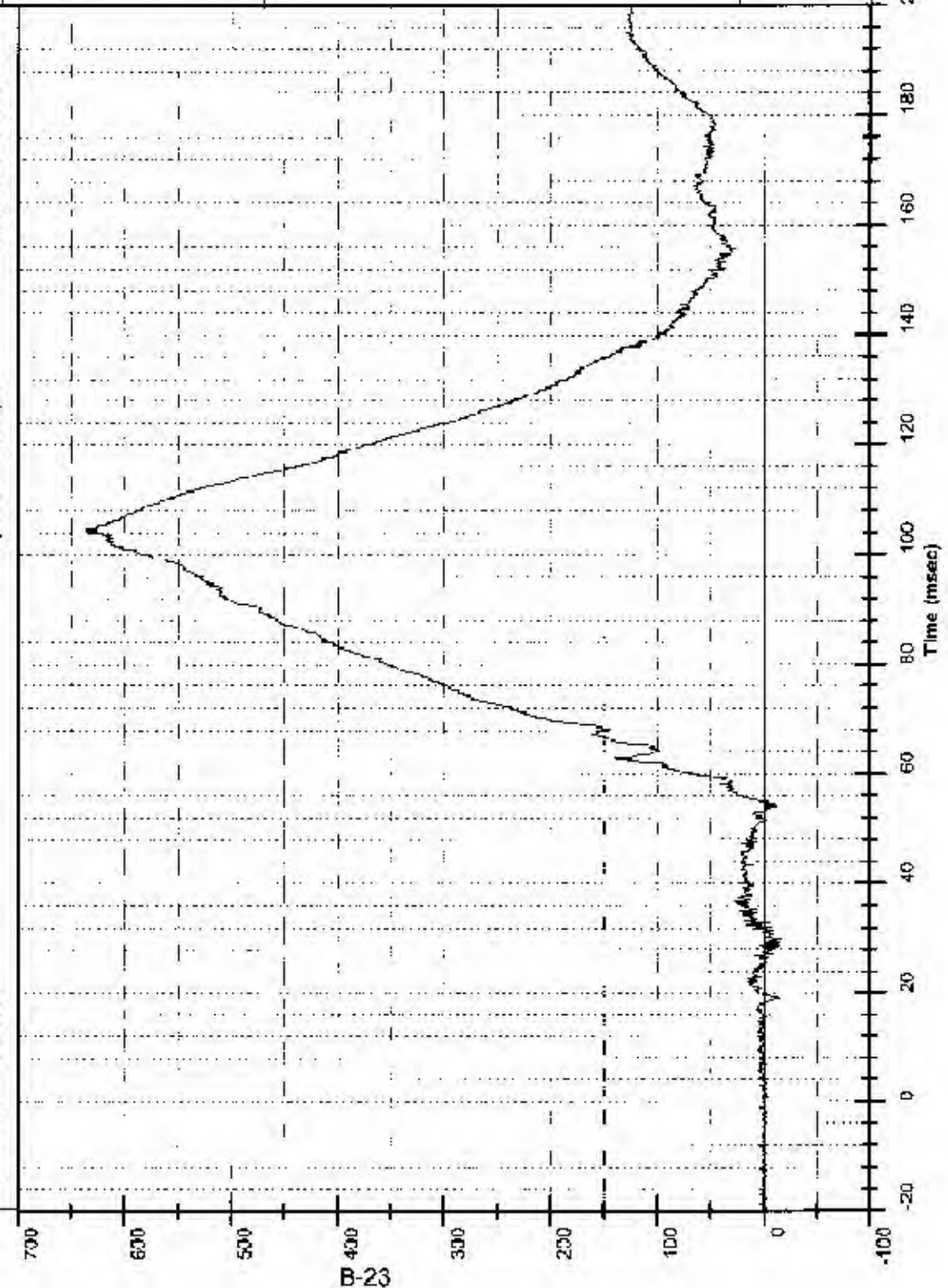
MGA Research Corp
5000 Warner Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

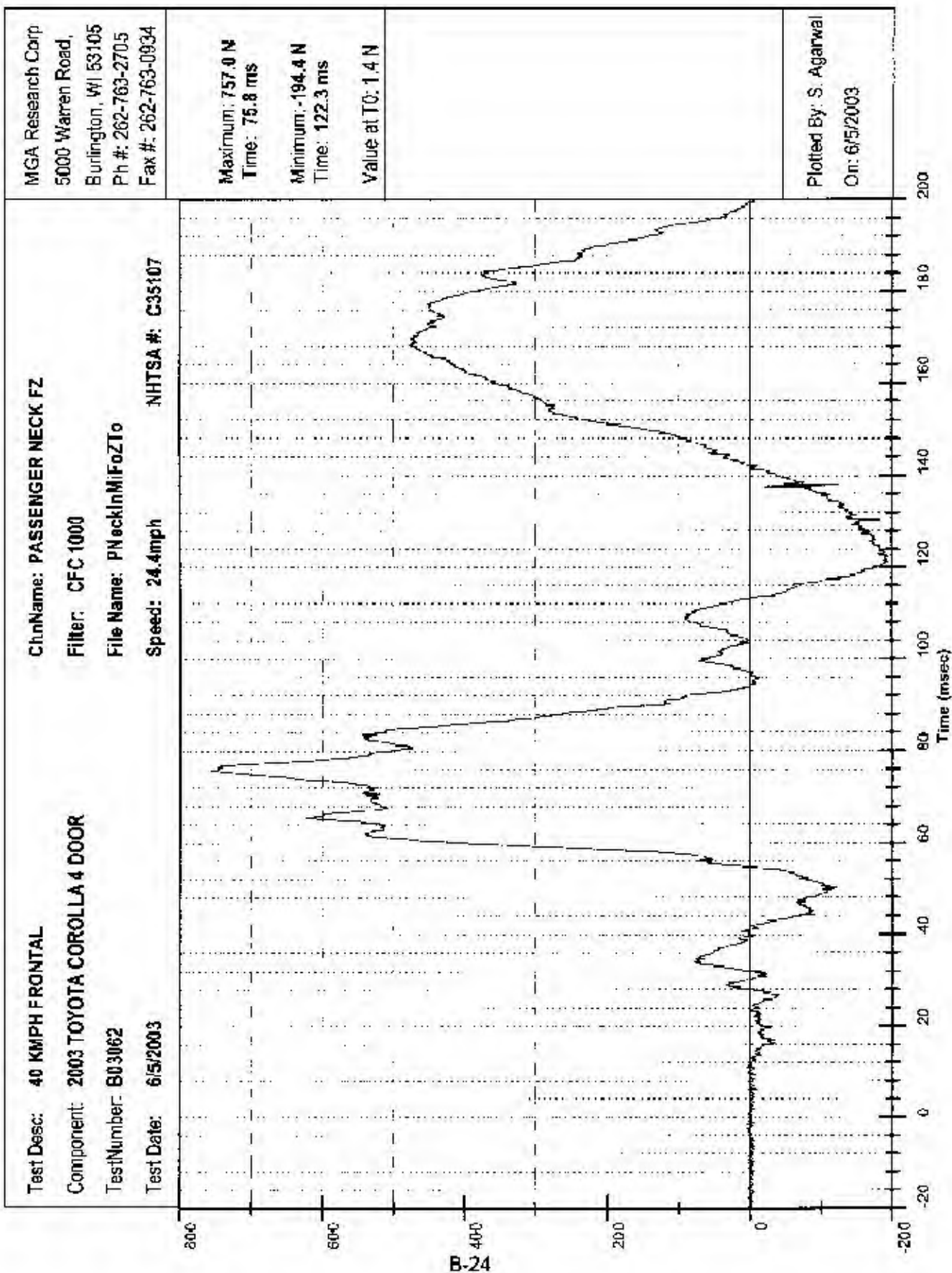
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003

ChnName: PASSENGER NECK FY
Filter: GFC 1000
File Name: PNeckInMiFoYTo
Speed: 24.4mph
NHTSA #: C35107

Maximum: 636.1 N
Time: 104.5 ms
Minimum: -16.0 N
Time: 28.9 ms
Value at T0: 1.3 N

Plotted By: S. Agarwal
On: 6/5/2003





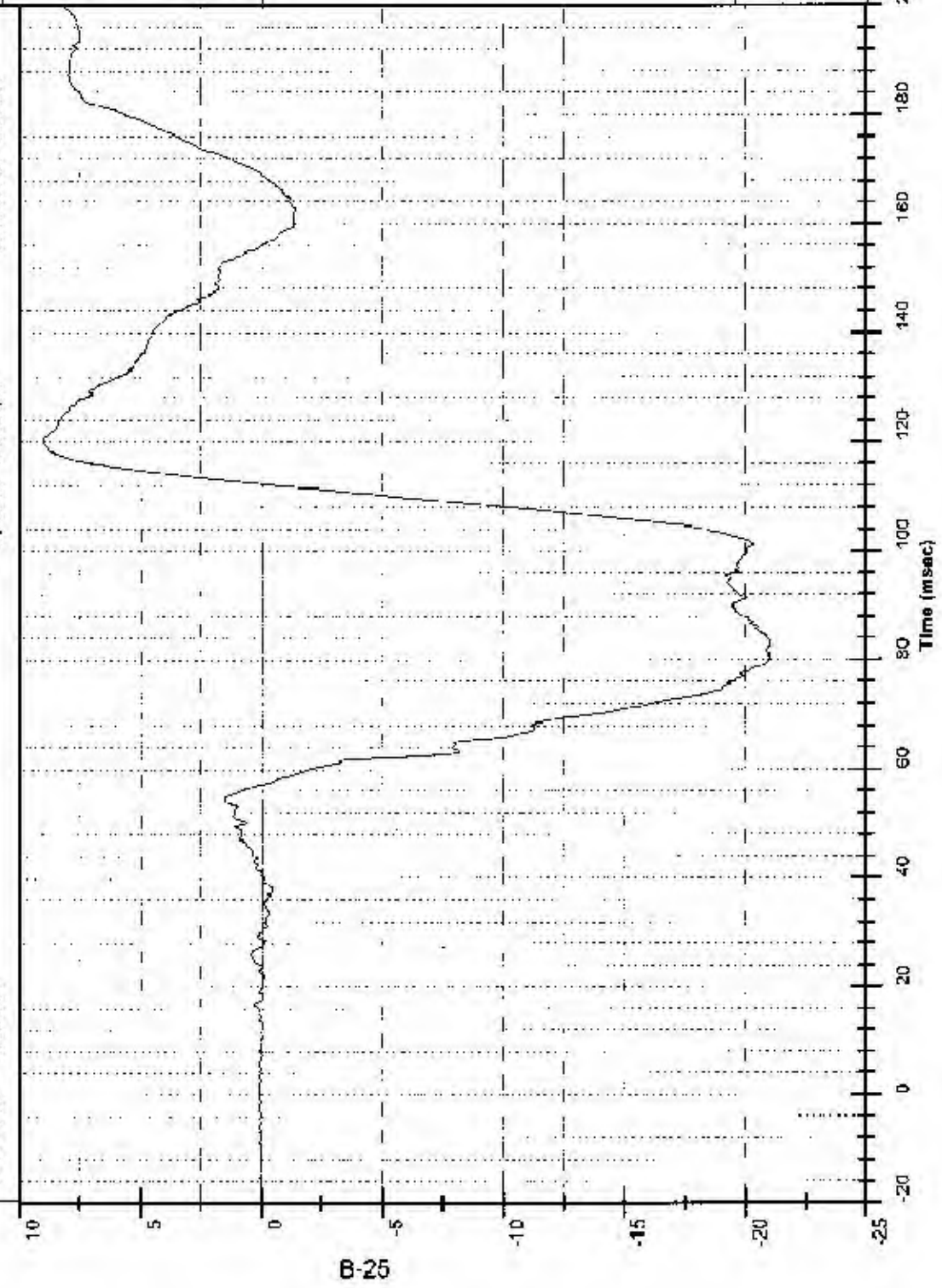
MGA Research Corp
5000 Warren Road,
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Ph #: 262-763-2705
Fax #: 262-763-0934

Test Desc: 40 KM/PH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003

ChnName: PASSENGER NECK MX
Filter: CFC 600
File Name: PNeckInMiMoXB0
Speed: 24.4mph
NHTSA #: C35107

Maximum: 9.0 Nm
Time: 119.9 ms
Minimum: -21.0 Nm
Time: 83.2 ms
Value at T0: -0.0 Nm

Plotted By: S. Agarwal
On: 6/5/2003

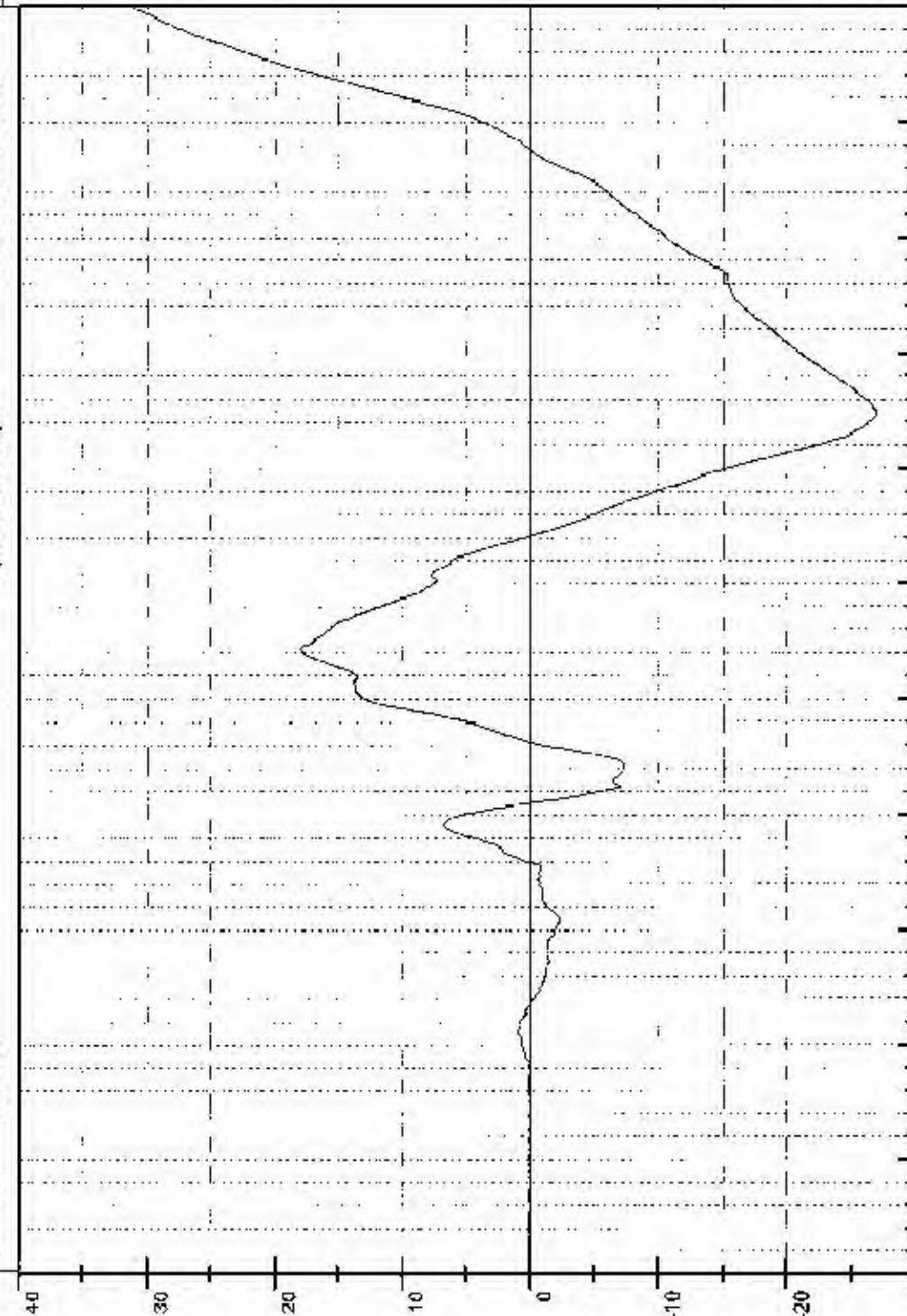


Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
TestNumber: B03062
Test Date: 6/5/2003

ChnName: PASSENGER NECK MY
Filter: CFC 600
File Name: PNeckInMMMoYBo
Speed: 24.4mph
NHTSA #: C35107

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Ph #: 262-763-2705
Fax #: 262-763-0934

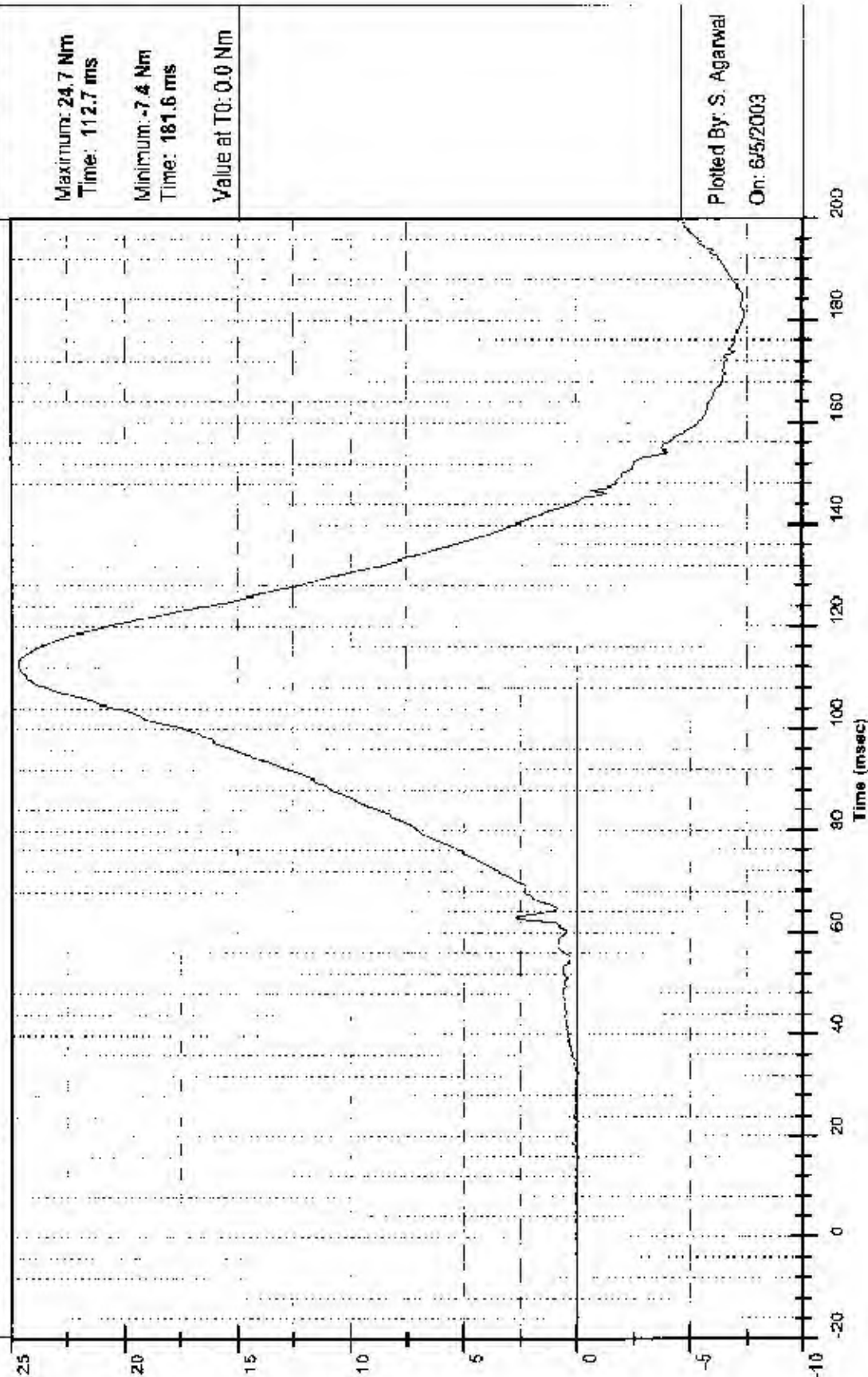
Maximum: 31.1 Nm
Time: 200.0 ms
Minimum: -27.1 Nm
Time: 129.2 ms
Value at T0: 0.0 Nm



Plotted By: S. Agarwal
On: 6/5/2003

Test Desc: 40 KMPH FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR TestNumber: B03052 Test Date: 6/5/2003	ChrName: PASSENGER NECK MZ Filter: CFC 600 File Name: PNeckInMiMoZBo Speed: 24.4mph NHTSA #: C35107	MGA Research Corp 5000 Warren Road, Burlington, WI 53105 Ph #: 262-763-2705 Fax #: 262-763-0934
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Maximum: 24.7 Nm Time: 112.7 ms Minimum: -7.4 Nm Time: 181.6 ms Value at T0: 0.0 Nm



Plotted By: S. Agarwal
On: 6/5/2003

Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

Test Number: B03062

Test Date: 6/5/2003

ChnName: PASSENGER CHEST X

Filter: CFC 180

File Name: PChstInMIACXCo

Speed: 24.4mph

NHTSA #: C35107

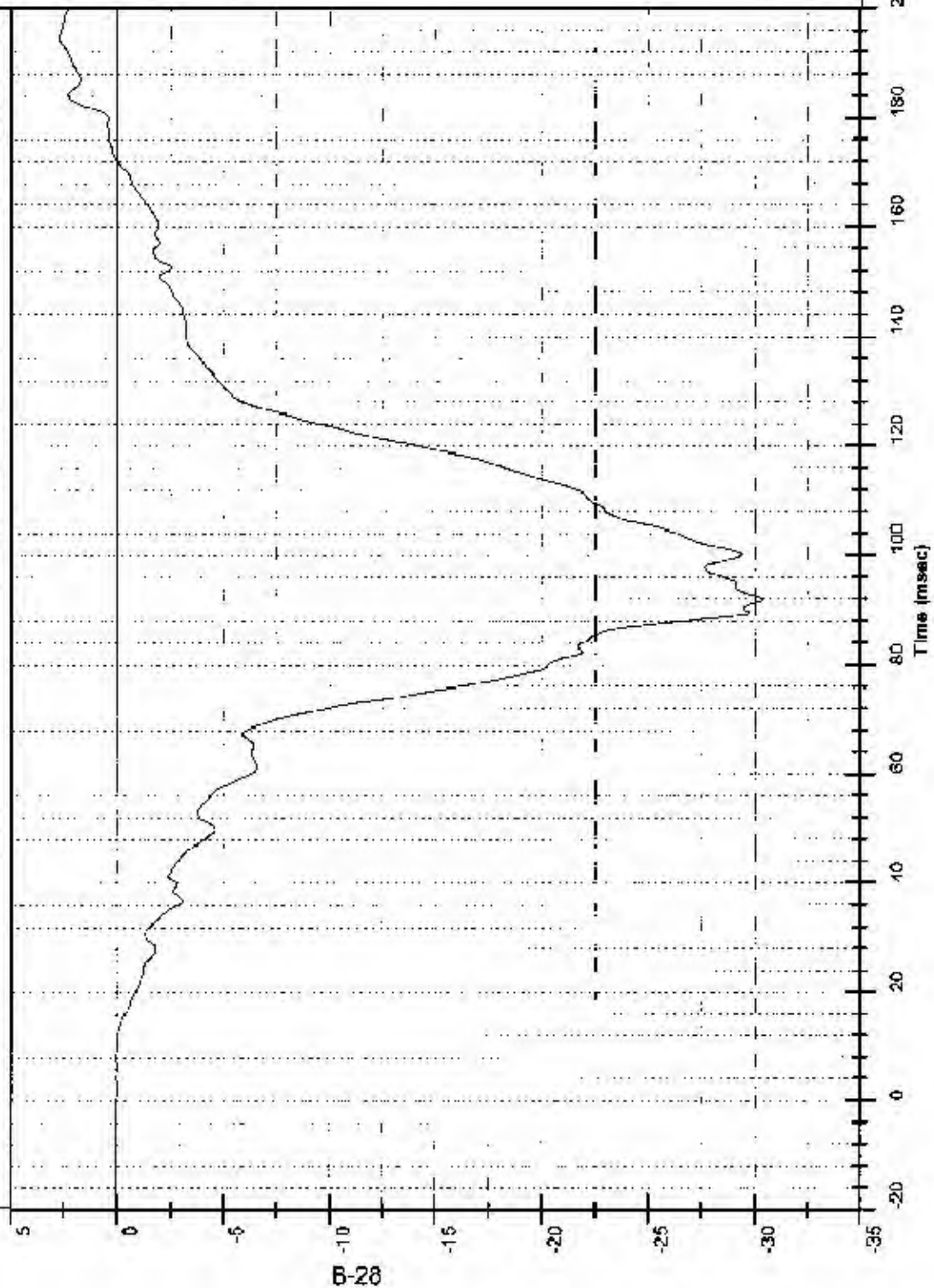
MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

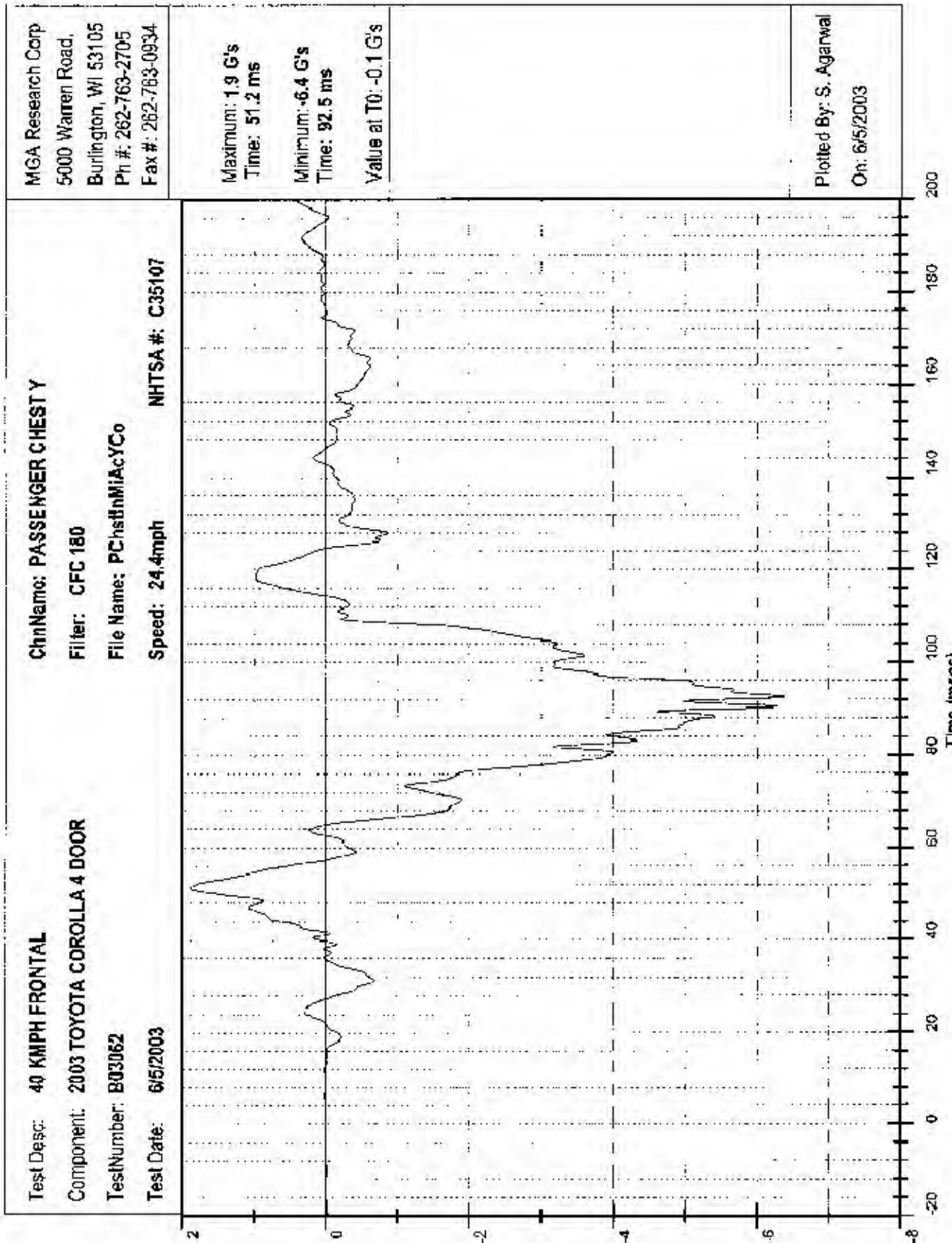
Maximum: 2.7 G's
Time: 194.6 ms

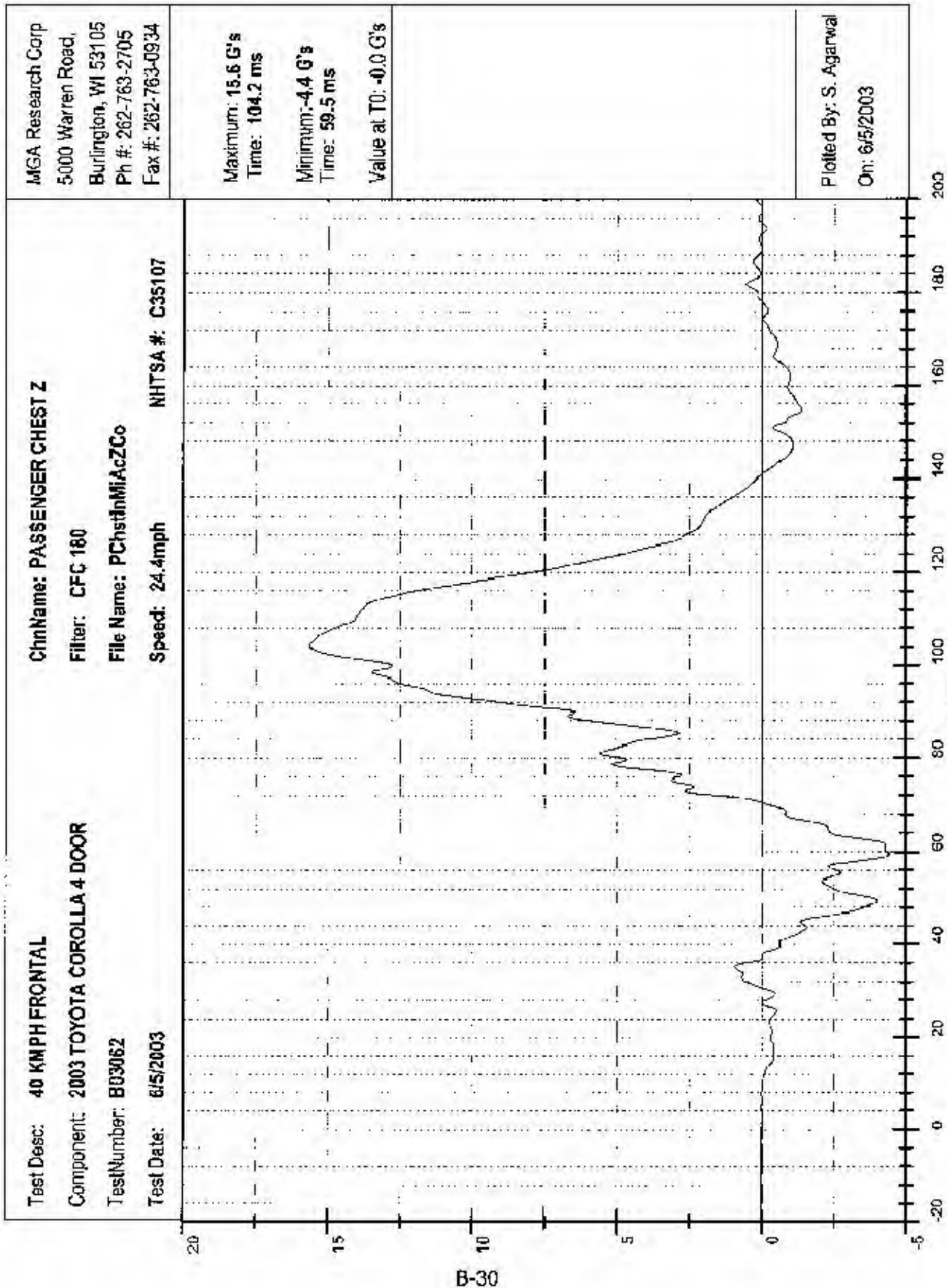
Minimum: -30.4 G's
Time: 91.8 ms

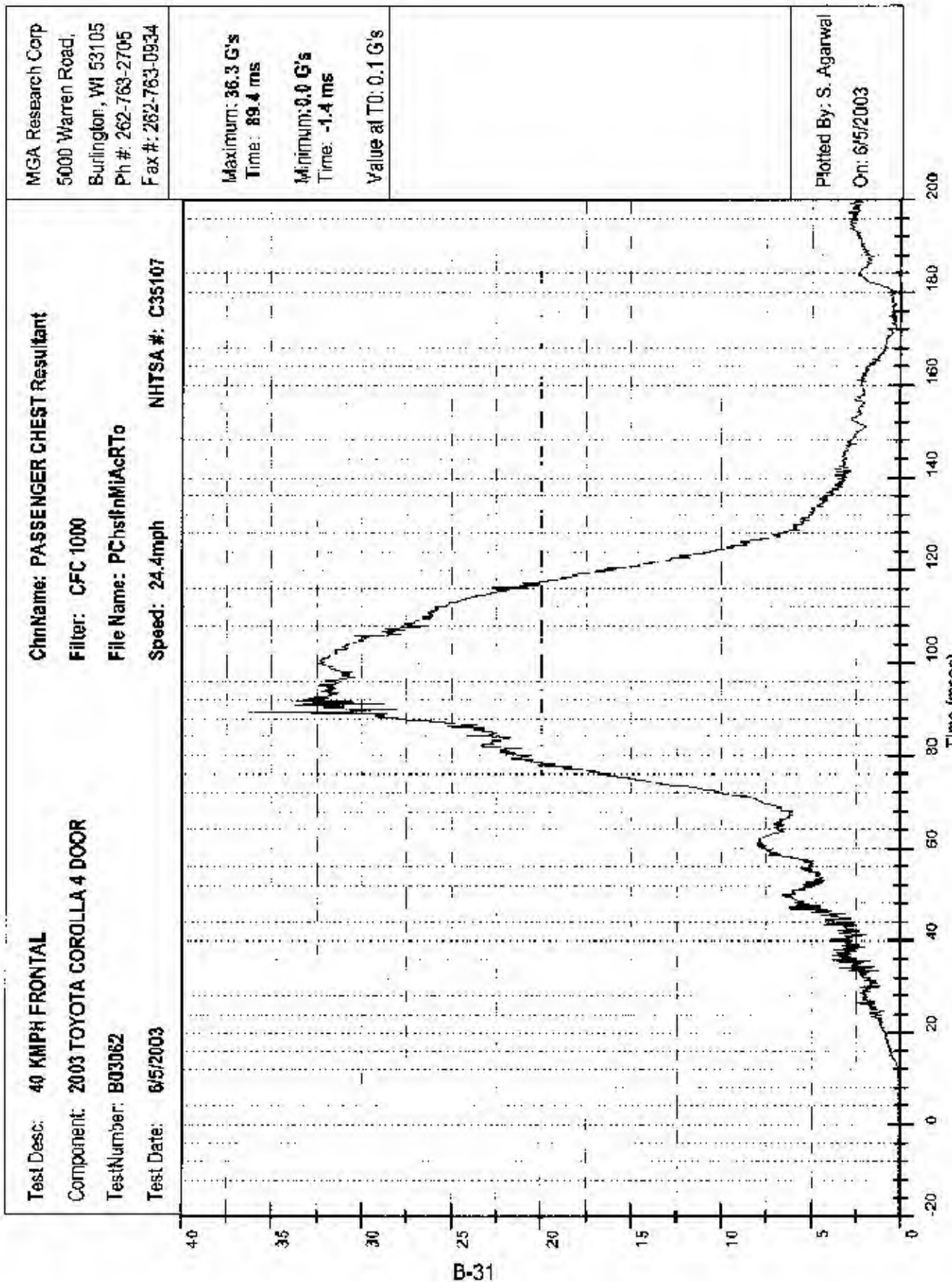
Value at T0: 0.0 G's

Plotted By: S. Agarwal
On: 6/5/2003

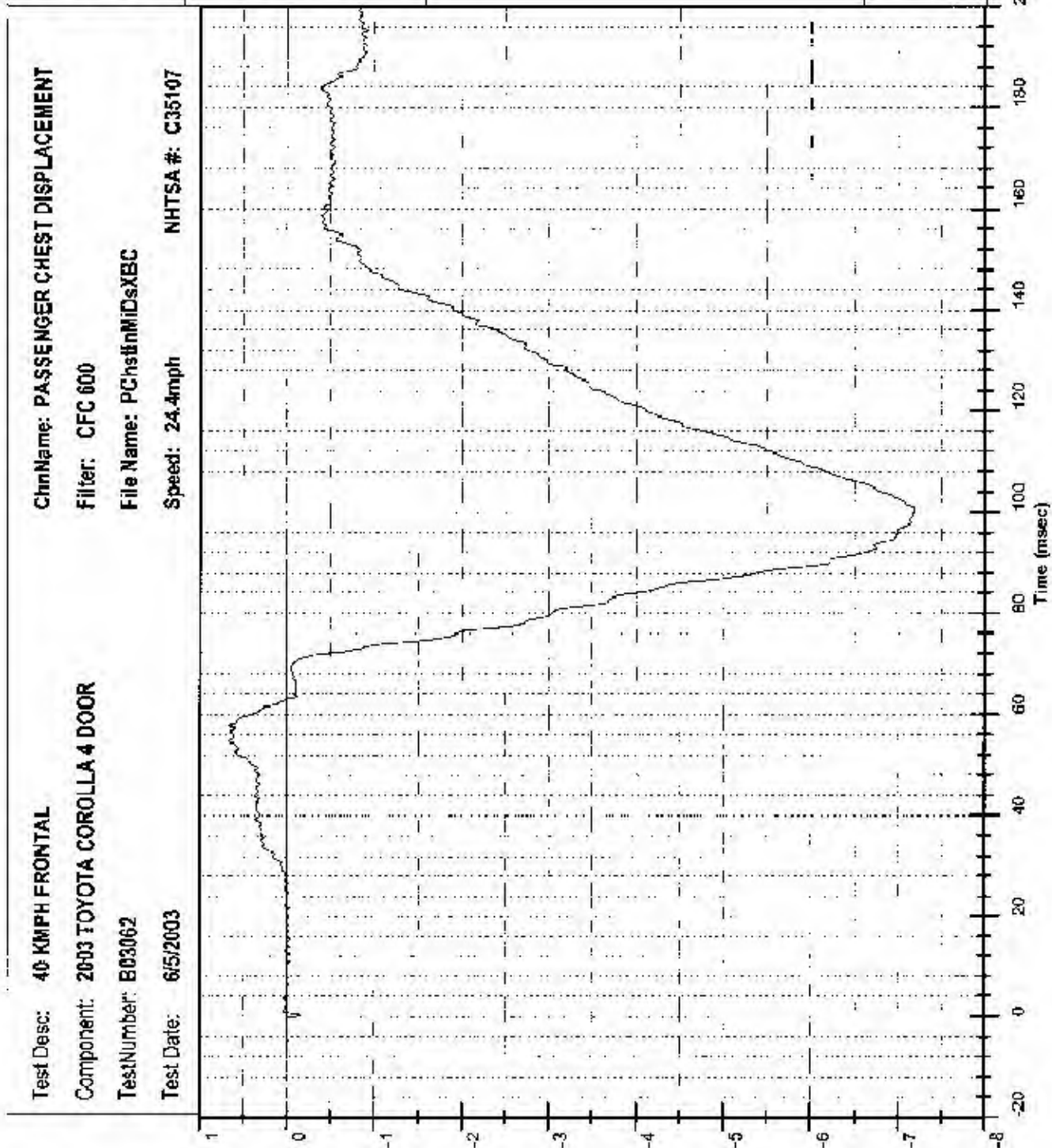








Test Desc: 40 KMPH FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR Test Number: B03062 Test Date: 6/5/2003	ChnName: PASSENGER CHEST DISPLACEMENT Filter: CFC 600 File Name: PChsfnMIDsXBC Speed: 24.4mph NHTSA #: C35107	Maximum: 0.7 mm Time: 54.7 ms Minimum: -7.2 mm Time: 100.6 ms Value at T0: 0.0 mm	Plotted By: S. Agarwal On: 6/5/2003
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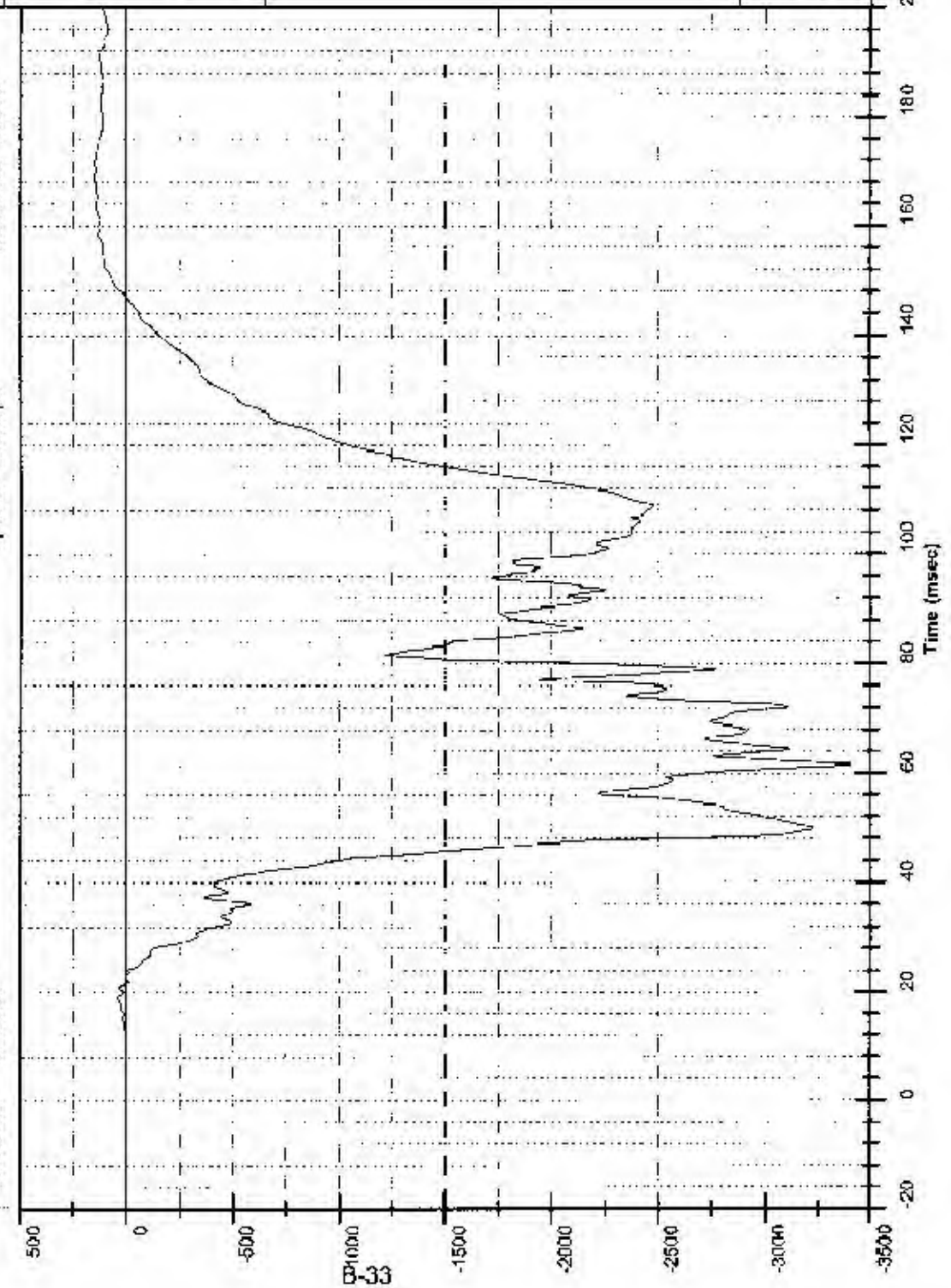
MGA Research Corp
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Fax #: 262-763-0934

Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003

ChnName: PASSENGER LEFT FEMUR
Filter: CFC 600
File Name: PFemrLeMIFoXBo
Speed: 24.4mph NHTSA #: C35107

Maximum: 153.6 N
Time: 171.3 ms
Minimum: -3,413.2 N
Time: 61.6 ms
Value at T0: -1.8 N

Plotted By: S. Agarwal
On: 6/5/2003

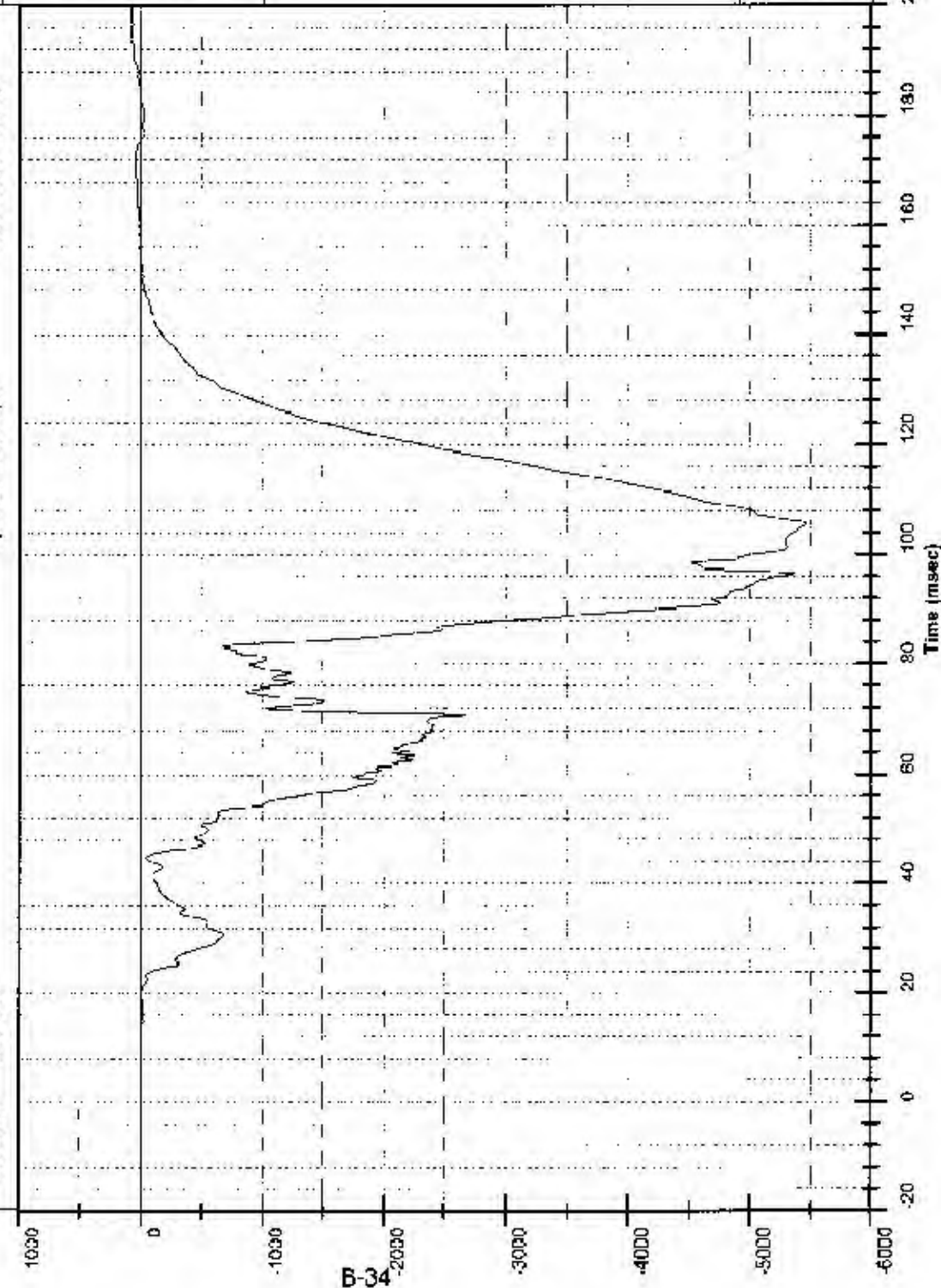


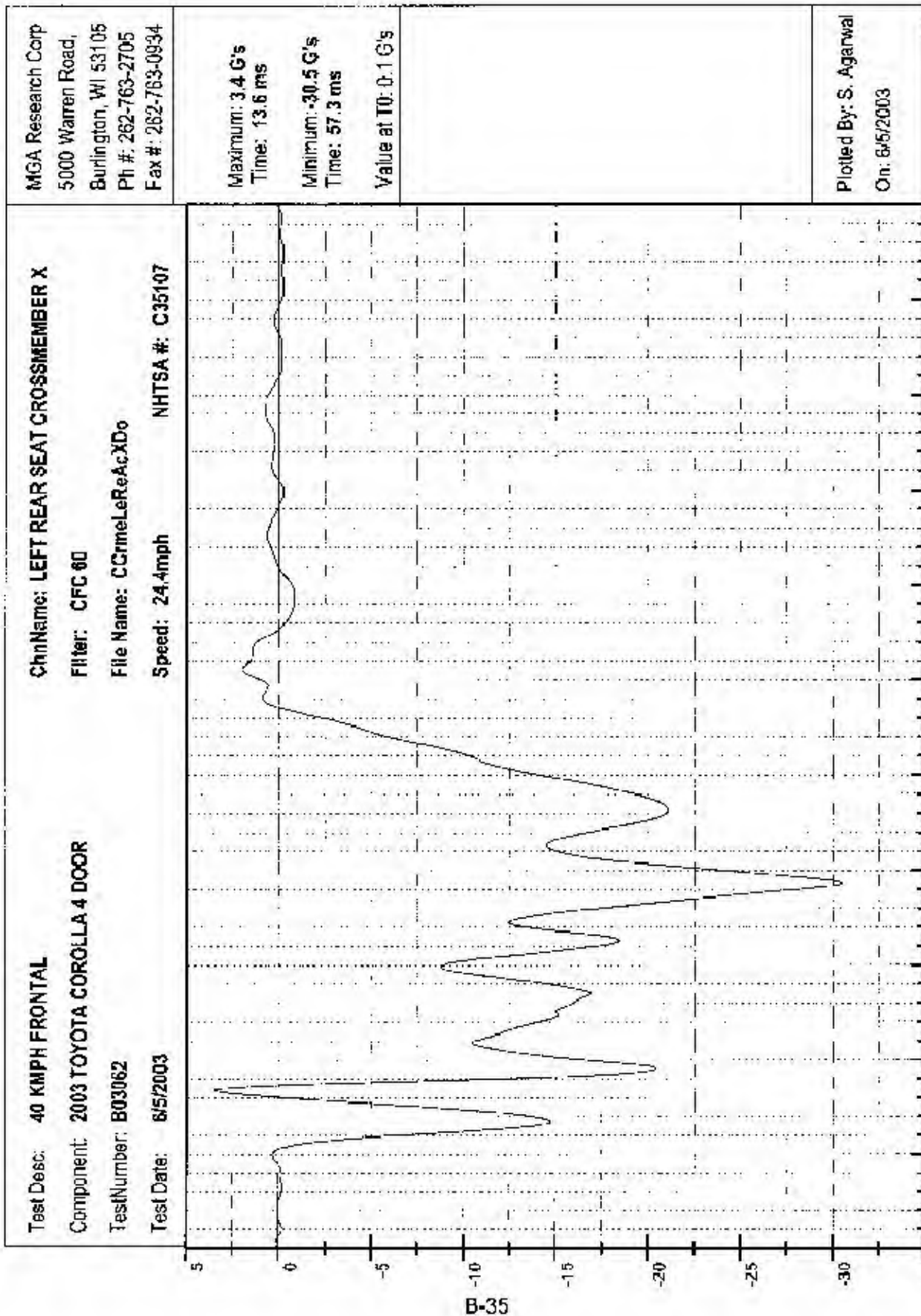
MGA Research Corp
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Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

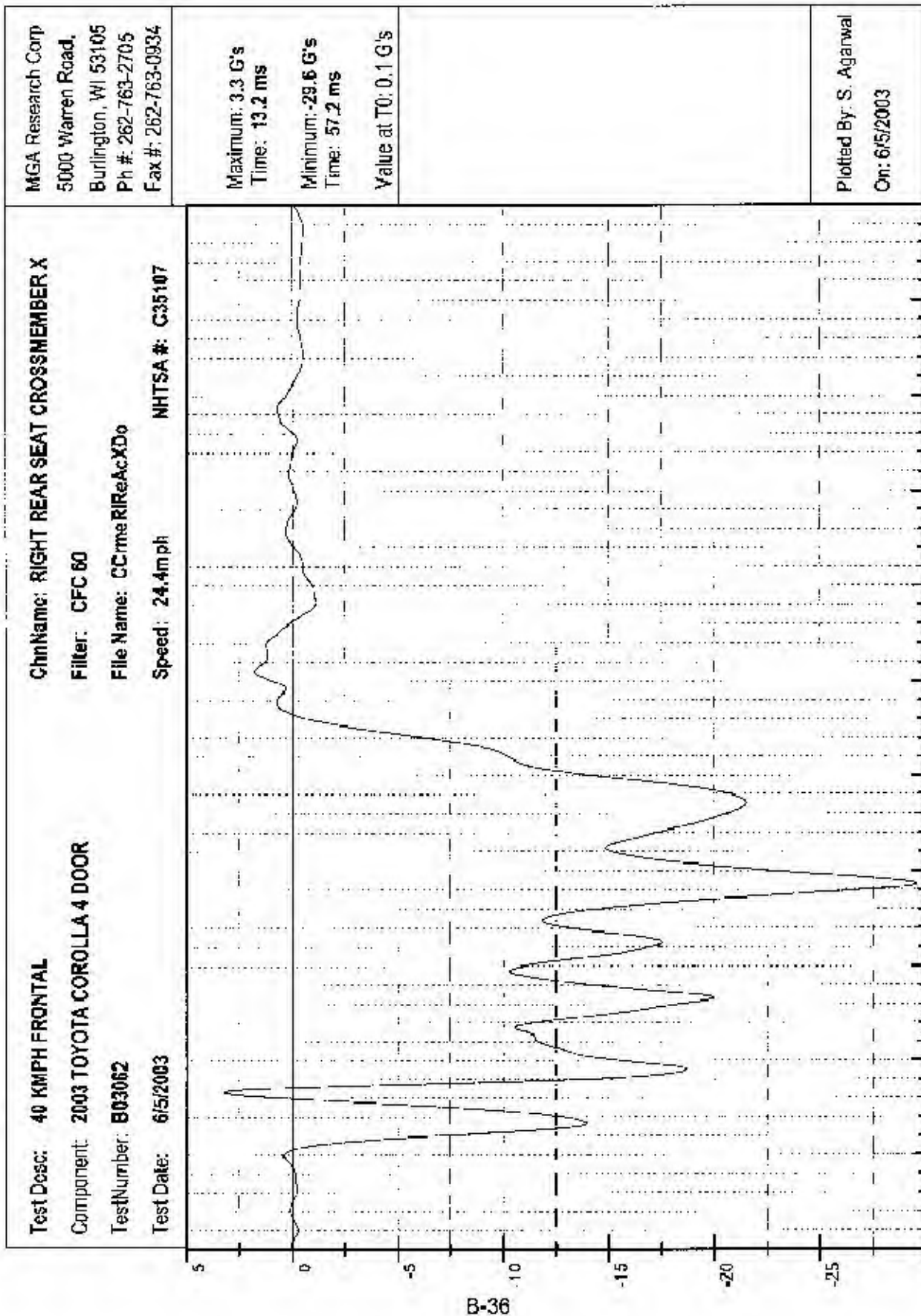
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03052
Test Date: 6/5/2003
ClnName: PASSENGER RIGHT FEMUR
Filter: CFC 600
File Name: PFemrRiMiFoXBo
Speed: 24.4mph
NHTSA #: C35107

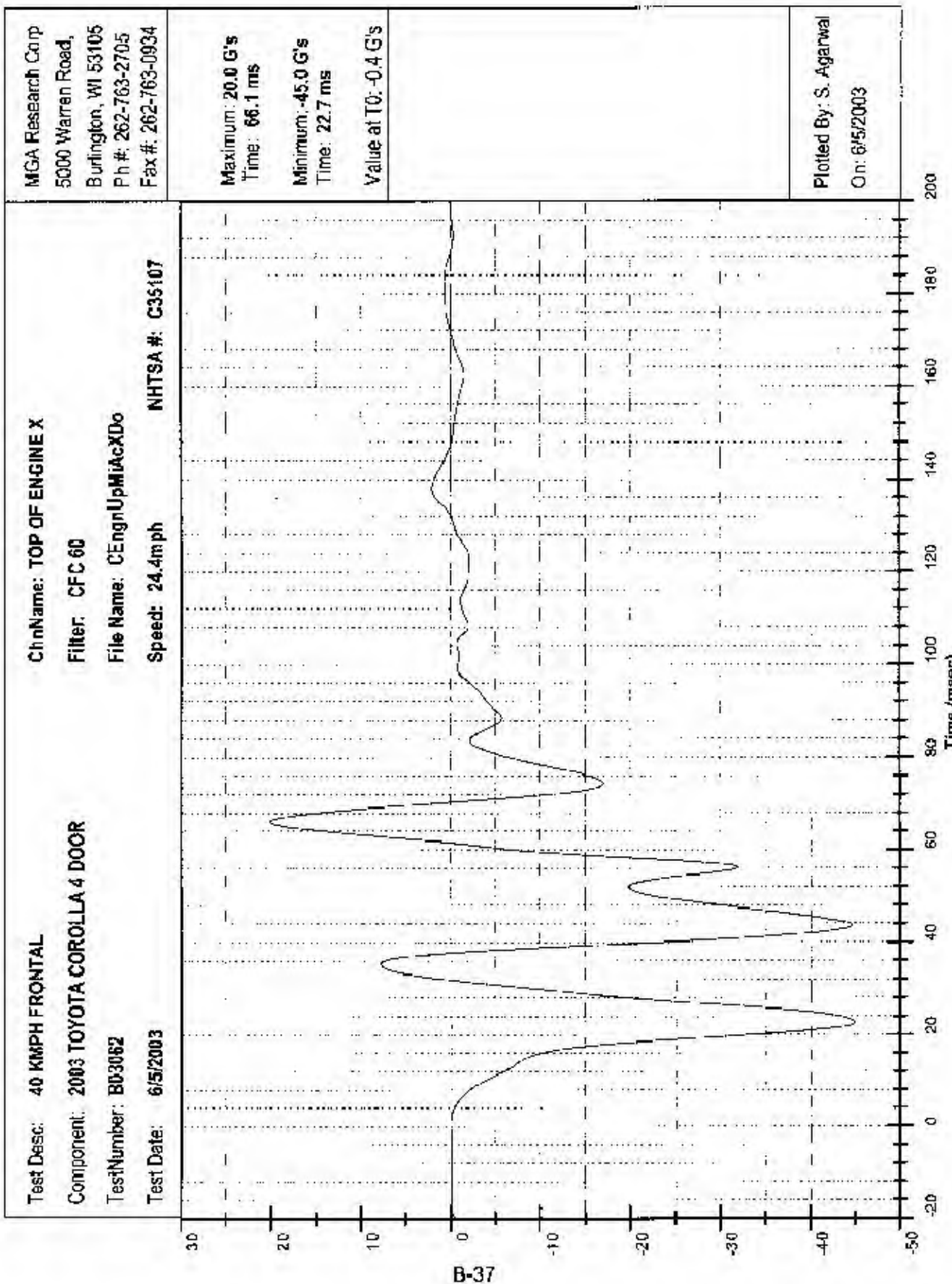
Maximum: 79.4 N
Time: 200.0 ms
Minimum: -5,463.8 N
Time: 105.6 ms
Value at T0: 5.5 N

Plotted By: S. Agarwal
On: 6/5/2003

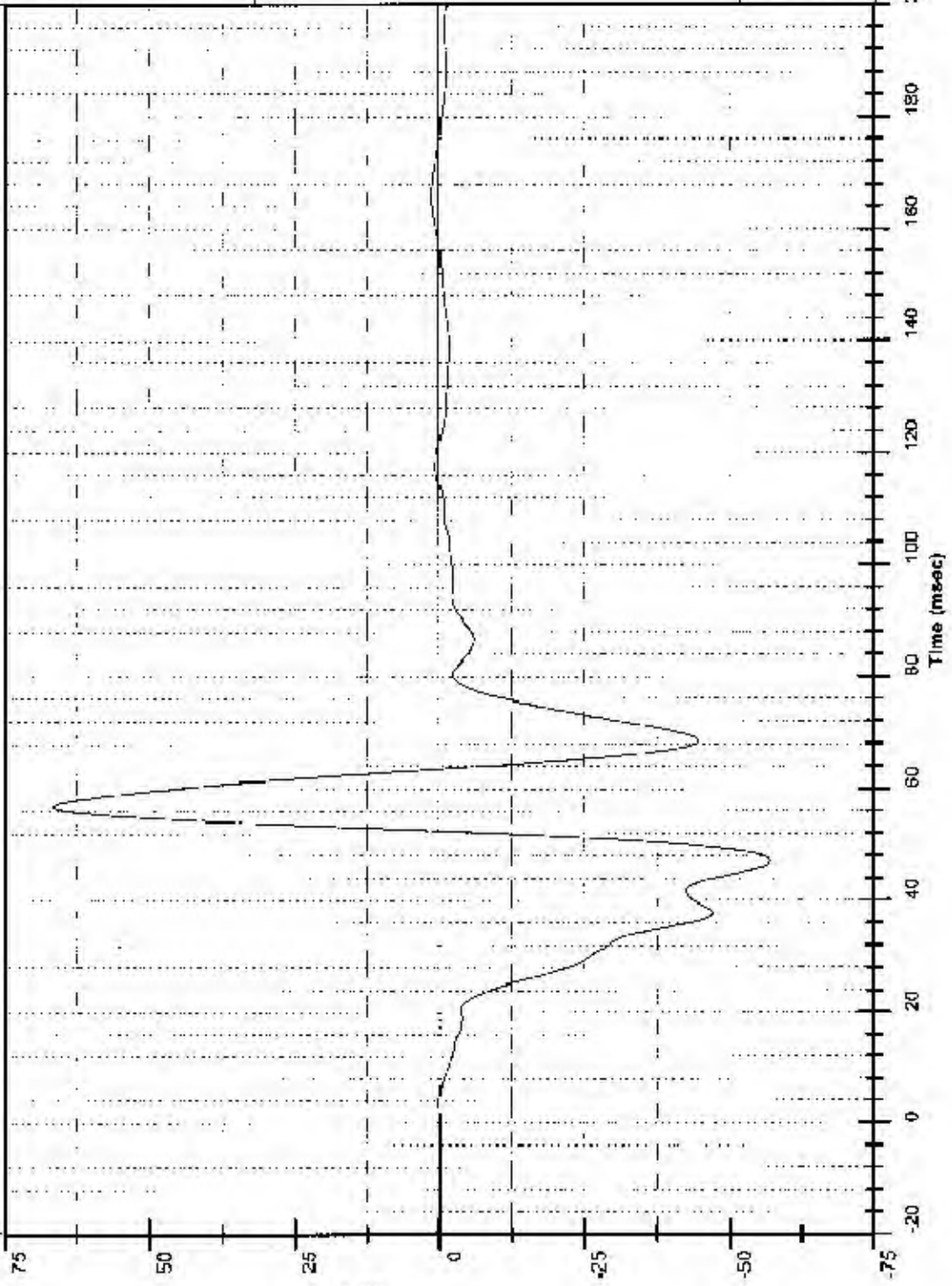






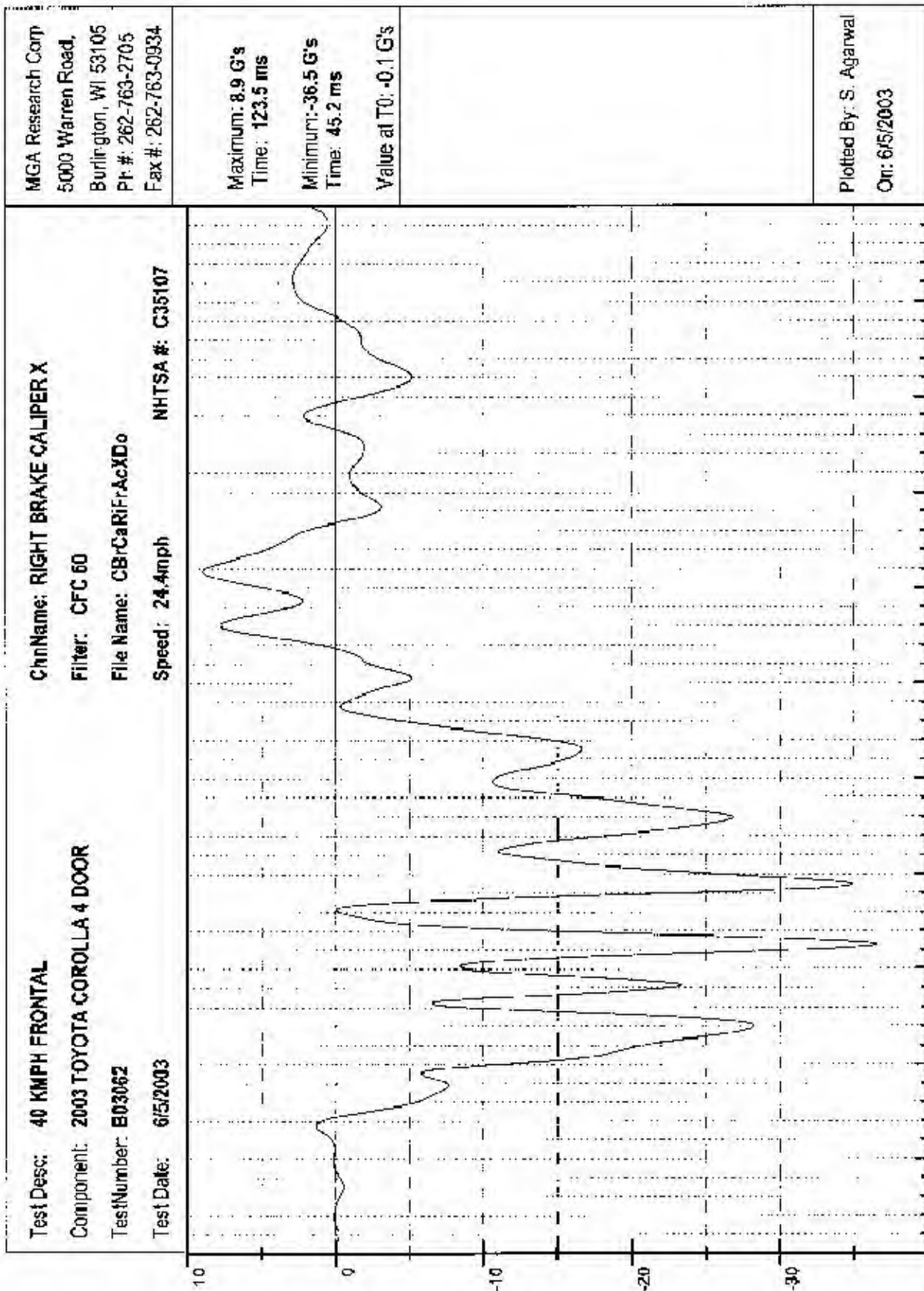


Test Desc: 40 KMPH FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR Test Number: B03062 Test Date: 6/5/2003	ChnName: BOTTOM OF ENGINE X Filter: CFC 60 File Name: CEngnLoMIAcXDo Speed: 24.4mph NHTSA #: C35107	MGA Research Corp 5000 Warren Road, Burlington, WI 53105 Ph #: 262-763-2705 Fax #: 262-763-0934
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Maximum: 66.8 G's
 Time: 56.8 ms
 Minimum: -56.7 G's
 Time: 47.0 ms
 Value at T0: 0.5 G's

Plotted By: S. Agarwal
 On: 6/5/2003



Test Desc: 40 KMPH FRONTAL

Component: 2003 TOYOTA COROLLA 4 DOOR

Test Number: B03062

Test Date: 6/5/2003

ChnName: LEFT BRAKE CALIPER X

Filter: GFC 60

File Name: CBrCaLeFrAcXDo

Speed: 24.4mph

NHTSA #: C35107

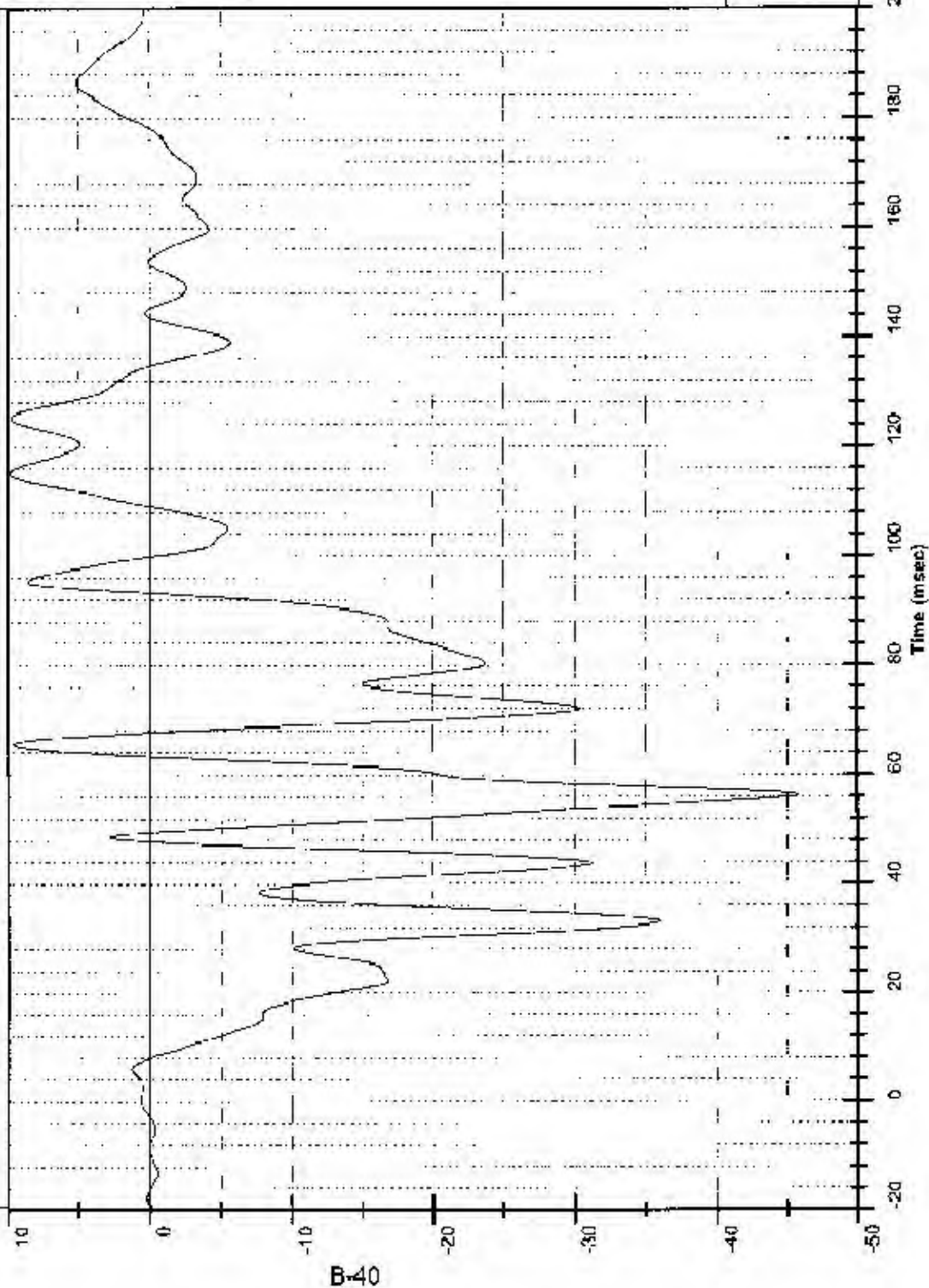
MGA Research Corp
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Ph #: 262-763-2705
Fax #: 262-763-0934

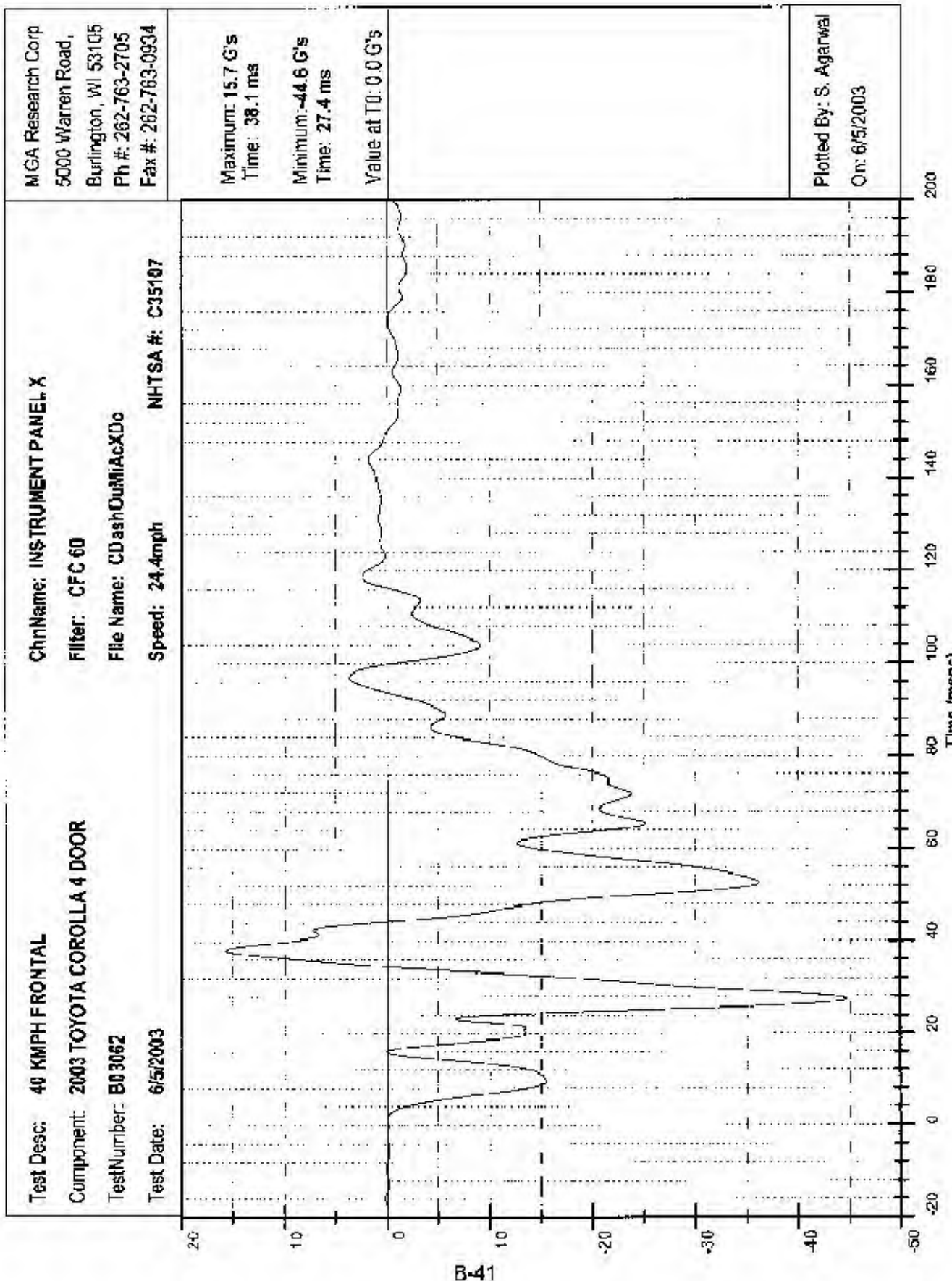
Maximum: 9.8 G's
Time: 115.2 ms

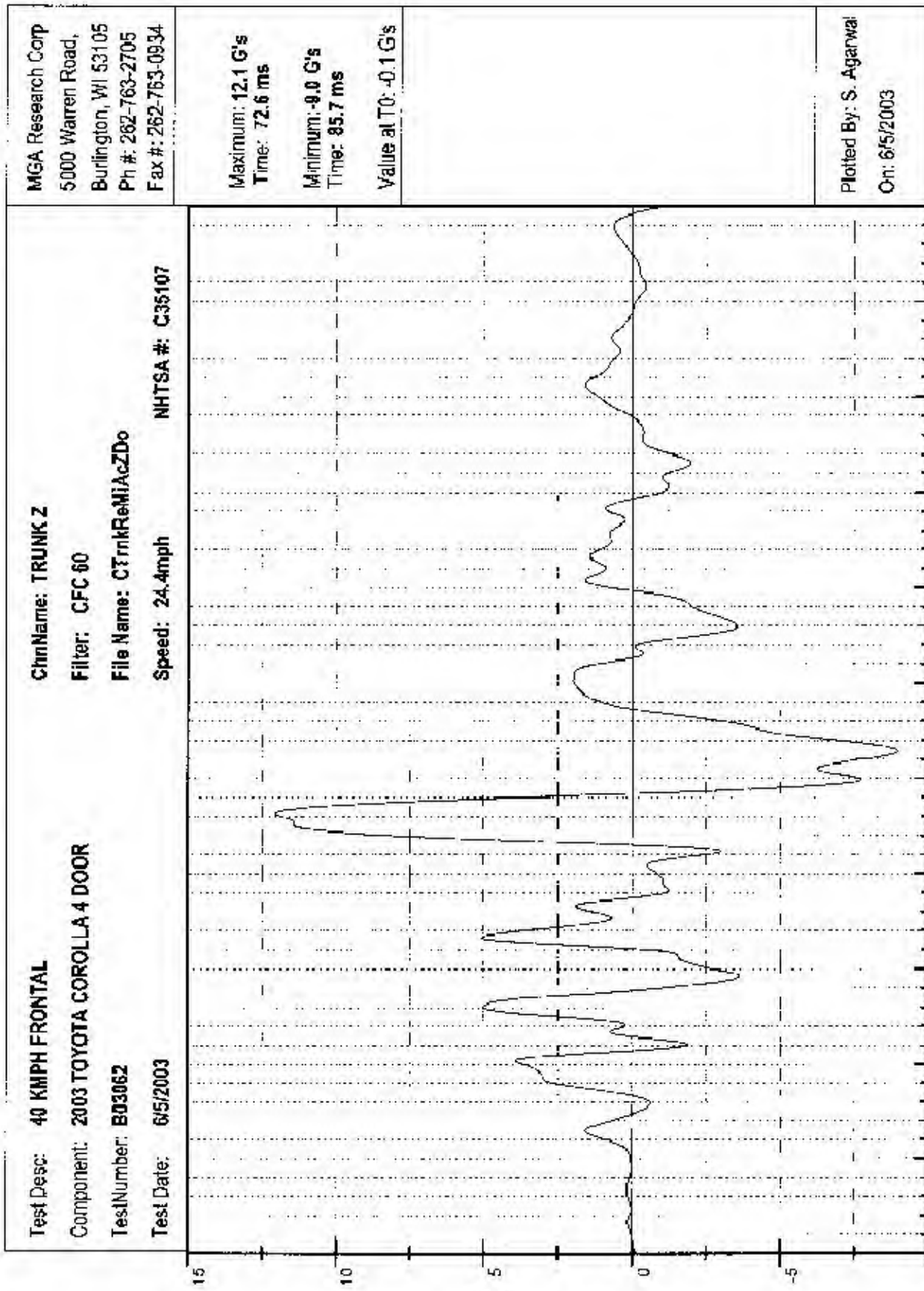
Minimum: -45.8 G's
Time: 56.3 ms

Value at T0: -0.3 G's

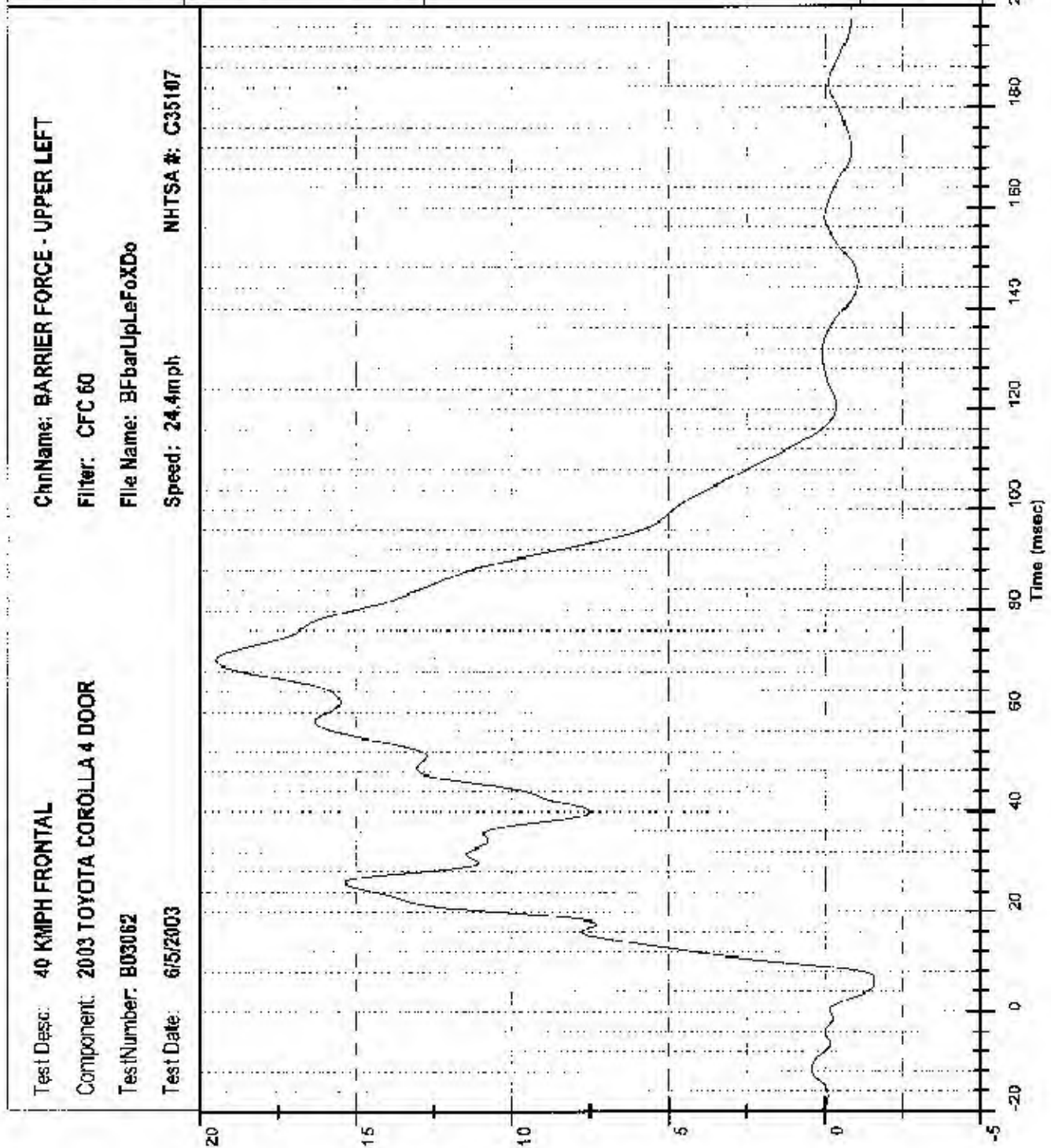
Plotted By: S. Agarwal
On: 6/5/2003







Test Desc: 40 KMPH FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR Test Number: B03062 Test Date: 6/5/2003	ChrName: BARRIER FORCE - UPPER LEFT Filter: CFC 60 File Name: BFbarUpLeFoXDo Speed: 24.4mph NHTSA #: G35107	Maximum: 19.5 kn Time: 70.2 ms Minimum: -1.6 kn Time: 5.3 ms Value at T0: 0.1 kn	Plotted By: S. Agarwal On: 6/5/2003
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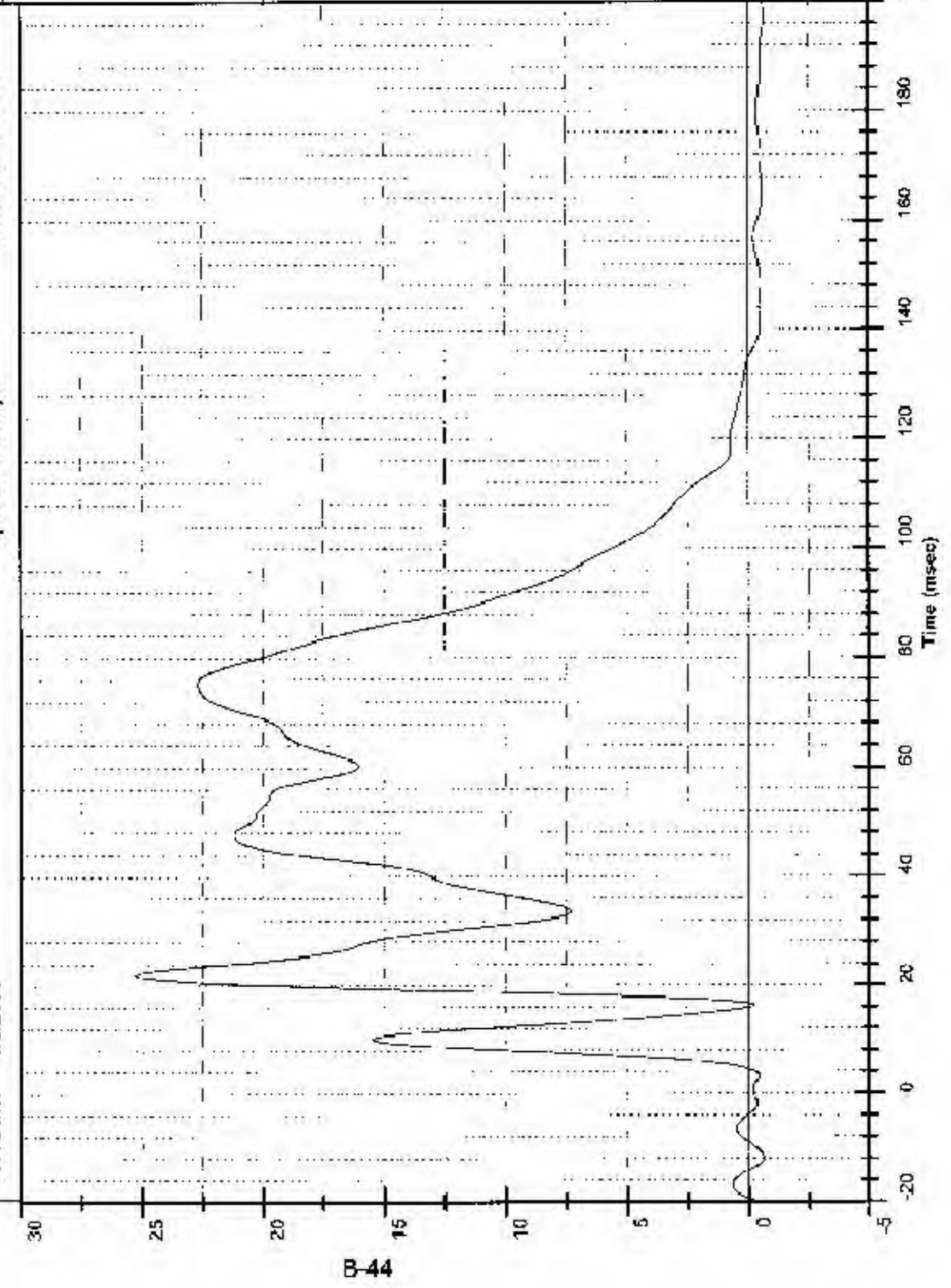
MGA Research Corp
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Ph #: 262-763-2705
Fax #: 262-763-0934

Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
TestNumber: B03062
Test Date: 6/5/2003

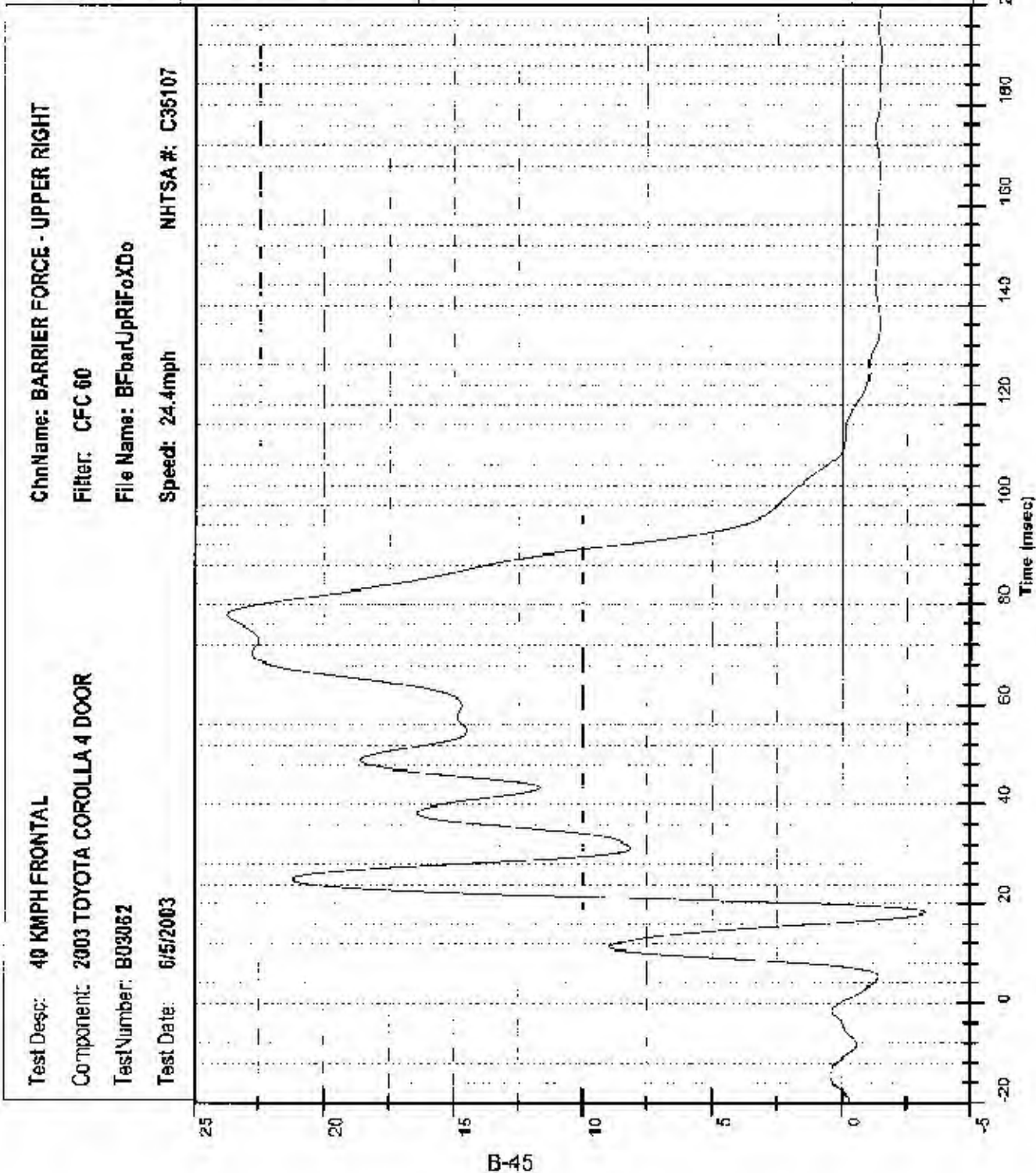
ChnName: BARRIER FORCE - UPPER CENTER
Filter: CFC 60
File Name: BFbarUpMiFoXDo
Speed: 24.4mph
NHTSA #: C35107

Maximum: 25.3 kn
Time: 22.0 ms
Minimum: -0.6 kn
Time: 196.9 ms
Value at T0: -0.4 kn

Plotted By: S. Agarwal
On: 6/5/2003



Test Desc: 40 KMPH FRONTAL Component: 2003 TOYOTA COROLLA 4 DOOR Test Number: B03052 Test Date: 6/5/2003	ChnName: BARRIER FORCE - UPPER RIGHT Filter: CFC 60 File Name: BFbarUpRiFoXDo Speed: 24.4mph NHTSA #: C35107	Maximum: 23.8 kn Time: 77.8 ms Minimum: -3.2 kn Time: 18.2 ms Value at T0: -0.3 kn	Plotted By: S. Agarwal On: 6/5/2003
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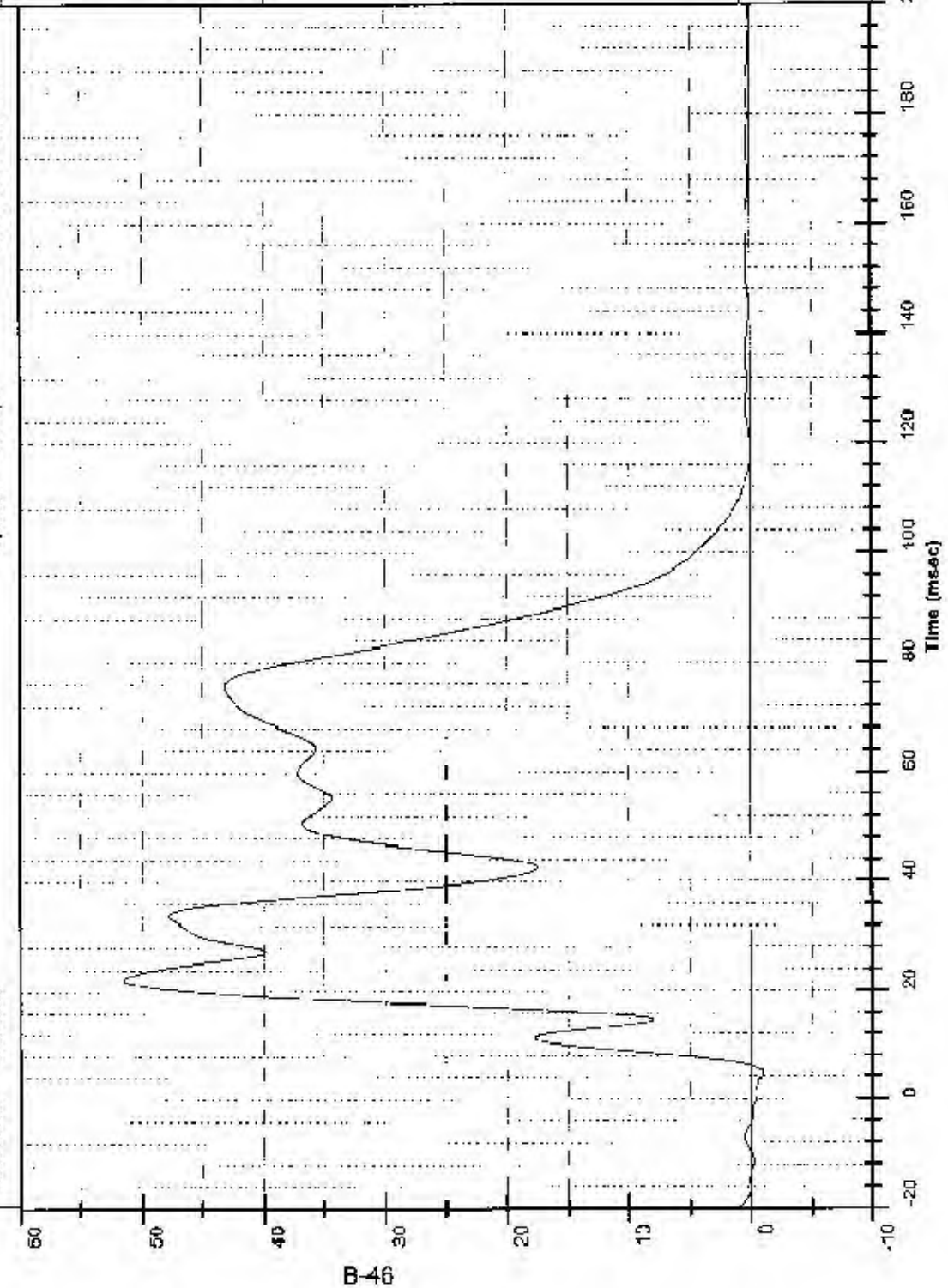
MGA Research Corp
5000 Warren Road,
Burlington, WI 53105
Ph #: 262-763-2705
Fax #: 262-763-0934

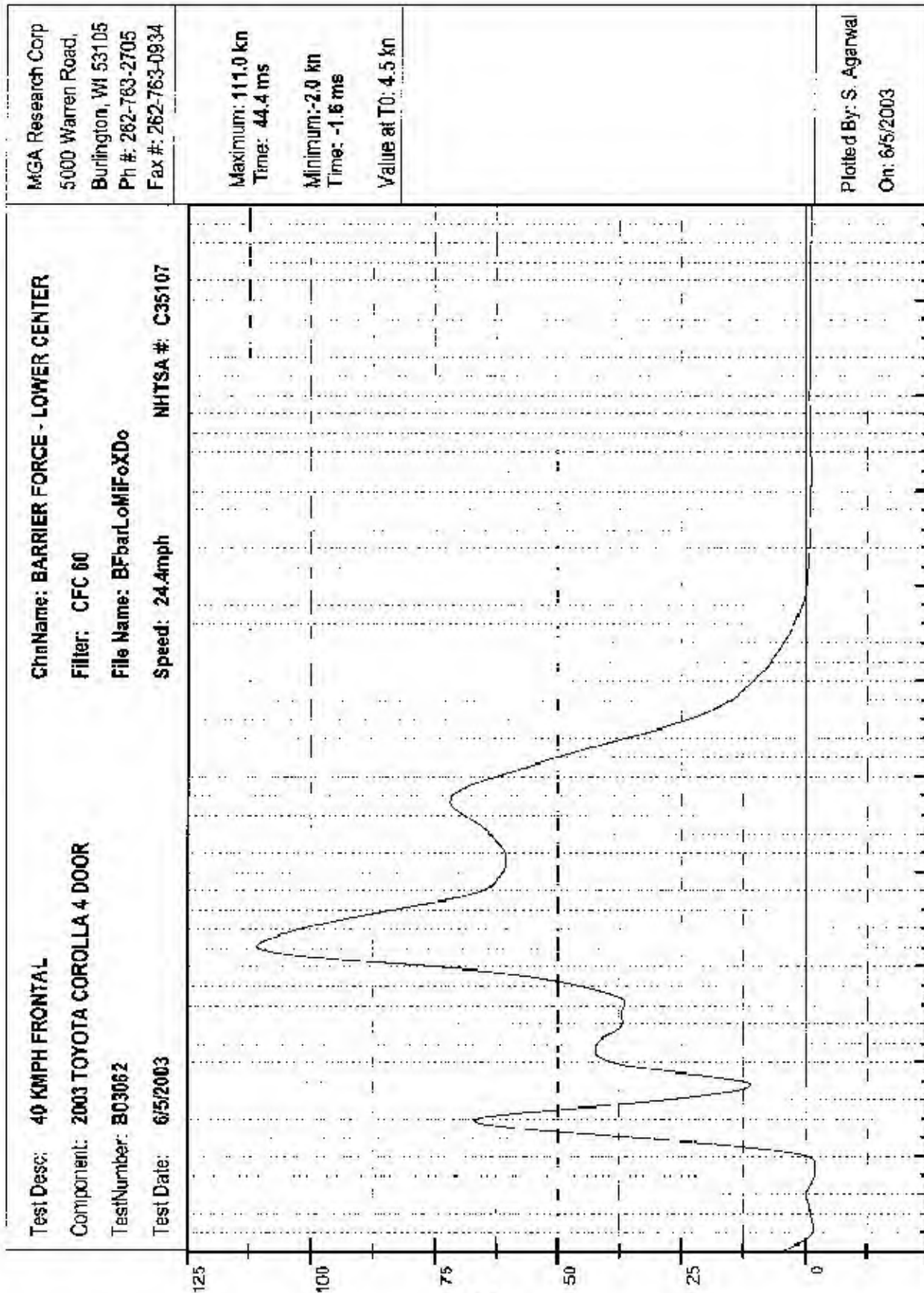
Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003

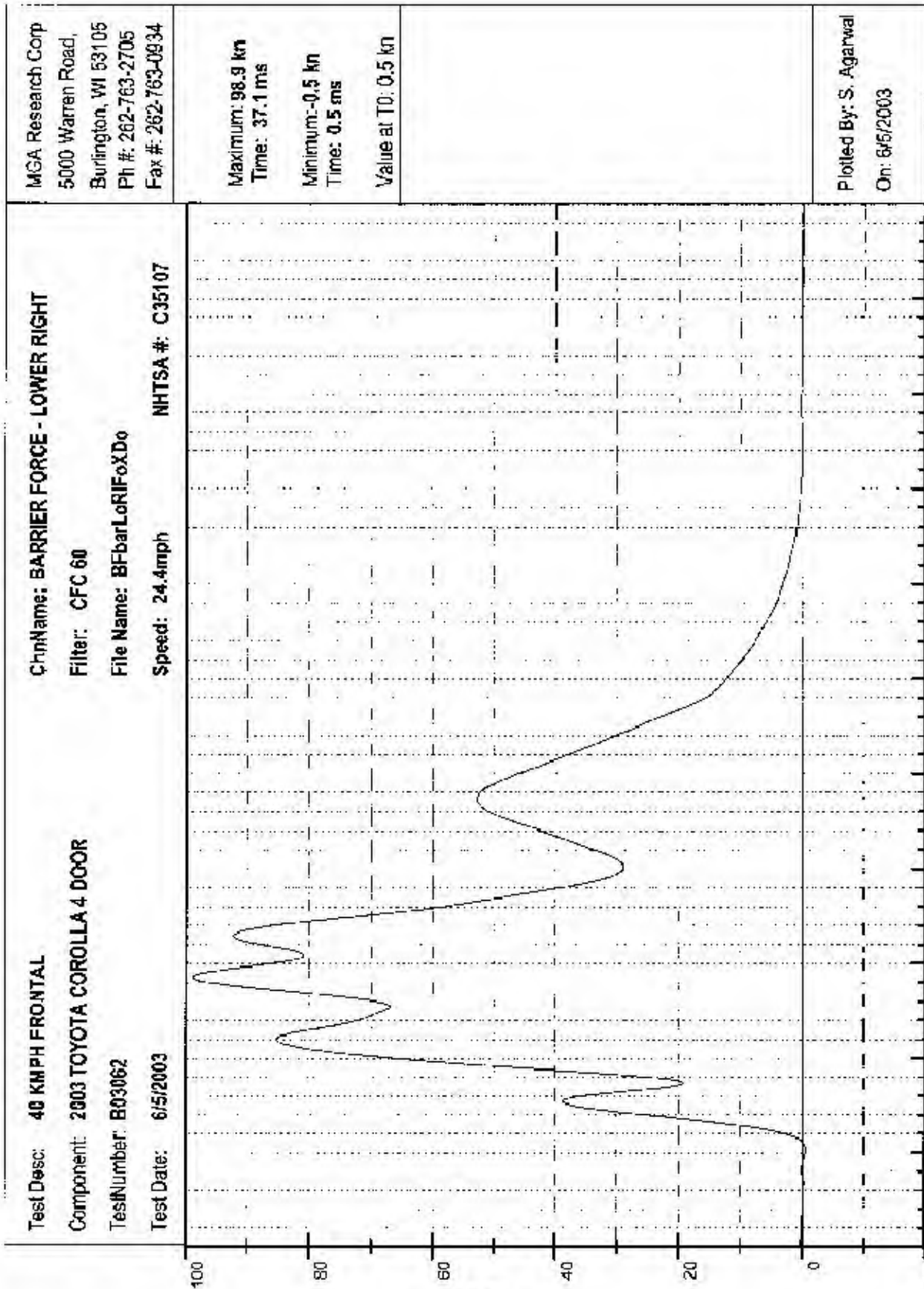
ChnName: BARRIER FORCE - LOWER LEFT
Filter: CFC 60
File Name: BFbarLoLeFoXDo
Speed: 24.4mph
NHTSA #: C35107

Maximum: 51.5 kn
Time: 22.3 ms
Minimum: -0.9 kn
Time: 4.7 ms
Value at T0: 1.2 kn

Plotted By: S. Agarwal
On: 6/5/2003







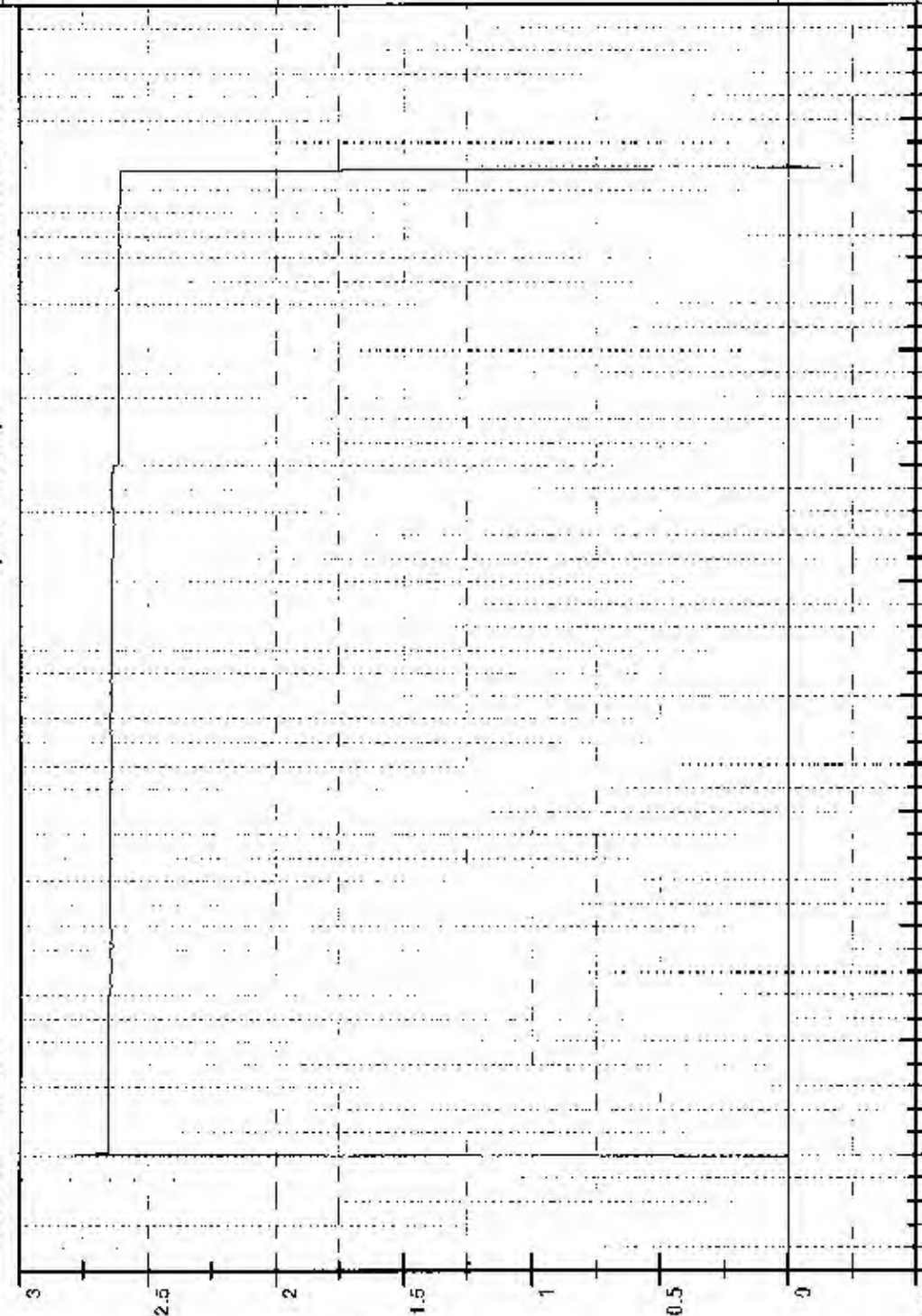
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Test Desc: 40 KMPH FRONTAL
Component: 2003 TOYOTA COROLLA 4 DOOR
Test Number: B03062
Test Date: 6/5/2003

ChrName: Barrier Contact
Filter: CFC 1000
File Name: BlmcoOutMIVoXTo
Speed: 24.4mph
NHTSA #: C35107

Maximum: 2.8 VOLTS
Time: 0.3 ms
Minimum: -0.1 VOLTS
Time: 171.6 ms
Value at T0: 0.0 VOLTS



Plotted By: S. Agarwal
On: 6/5/2003